WILKINSON, BARKER, KNAUER & QUINN, LLP

Washington, DC
Frankfurt, Germany

2300 N Street, NW
Washington, DC 20037-1128

telephone: 202.783.4141
facsimile: 202.783.5851

September 3, 1998

VIA HAND DELIVERY

Ms. Magalie R. Salas
Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, DC 20554

Re: *Instructional Television Fixed Service Station WLX321 (Aguas Buenas, PR) — Settlement Pursuant to Pursuant to Footnote 47 of the March 16, 1986 Memorandum Opinion and Order in MM Docket No. 83-523*

Dear Ms. Salas:

On behalf of the Catholic Archdiocese of San Juan (the "Archdiocese"), licensee of Instructional Television Fixed Service ("ITFS") station WLX321 (San Juan, PR), we submit pursuant to footnote 47 of the March 16, 1986 *Memorandum Opinion and Order* in MM Docket No. 83-523 an original and one copy of an application of FCC Form 330 proposing to modify the license for operate WLX321 to conform with similar modifications for the other ITFS and Multipoint Distribution Service ("MDS") stations at Aguas Buenas, Puerto Rico. The Archdiocese and the other parties to the settlement that has led to this filing request, to the extent necessary, waiver of the cut-off rules and other such filing requirements to achieve the objectives of the settlement.

This settlement of competing ITFS applications was entered into by the University System of the Ana G. Mendez Educational Foundation ("Mendez"), Fundacion Sala, Inc. ("Sala"), WHTV Broadcasting Corp. ("WHTV"), the Archdiocese, and Caribbean University ("Caribbean"), and was originally filed with the Commission on May 29, 1998.[1] A copy of the settlement agreement may also be found appended as Exhibit F to the instant application.

Approval of the settlement and grant of the related applications would serve the public interest. The Commission has long recognized that the settlement of applications that have

---

[1] *See* FCC File No. BMPLIF-950914MD, WLX664 (Aguas Buenas, PR) (filed May 29, 1998).

previously achieved cut-off status serves the public interest.[2] If approved, this settlement would resolve a number of contested applications on the island of Puerto Rico, a location which suffers from significant spectrum congestion. In particular, the settlement proposes to resolve the mutually-exclusive applications of Archdiocese and Mendez proposing new ITFS facilities using the A Group channels (FCC File Nos. BPLIF-941201DB and BPLIF-940317DJ). The Archdiocese has filed with the Commission a petition for reconsideration of the FCC's grant of a license to Mendez for an ITFS facility at Cayey and denial of the Archdiocese's application, and that petition for reconsideration remains pending. In addition, Mendez has applied to the FCC for authority to make modifications to G Group ITFS station WLX664 (Aguas Buenas, PR) (File No. BMPLIF-950914MD), but Sala (as the licensee of adjacent channel MDS stations WHT655, WNTF632, WHTB423 and WNTB467 (Aguas Buenas/San Juan, PR)) has petitioned to deny Mendez's modification application on the grounds that the modified facility would result in harmful electrical interference to operation of the adjacent channel MDS facilities. The solution to that conflict requires that the Sala adjacent channel stations and the other MDS and ITFS stations comprising the San Juan wireless cable system be upgraded so as to avoid interference from Mendez.[3] Accordingly, the settlement also calls for grant of applications proposing the same technical characteristics as modifications applications that were previously proposed for WLX315 and WLX321, but which were dismissed due to interference concerns with other facilities applied for or licensed to Mendez at Cayey, Gurabo and Ceiba, PR. As part of the settlement, Mendez has consented to the grant of that system.

In short, waiver of the cut-off rules is warranted and is consistent with precedent since the applications now before the Commission are integral parts of a settlement agreement which successfully eliminate the mutual exclusivity of all involved qualified applicants and involve only channels already held by or timely applied for and cut off by the qualified local applicants which are parties to the settlement.[4] To recap, the settlement agreement requests the Commission's grant of each of the following applications:

---

[2] *See Amendment of Part 74 of the Commission's Rules and Regulations With Regard To The Instructional Television Fixed Service*, 59 RR 2d 1355, 1381 n. 47 (1986)

[3] As the Commission has long recognized, all of the transmission facilities that a wireless cable system operator employs must conform to a common design in order to yield the identical receive signal at each subscriber's residence. *See Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, and Cable Television Relay Service*, 5 FCC Rcd 6472, 6474 (1990).

[4] *See Archdiocese of Detroit*, 5 FCC Rcd 821, 822 (1990) (denying petitions for reconsideration and review filed by non-local applicant, Hispanic Information and Telecommunications Network, Inc., and upholding staff approval of settlement entered into by local educators for ITFS facilities in Detroit and grant of related applications).

- Reinstatement and grant of the application of the Archdiocese for a new ITFS station at Cayey using the A Group channels (File No. BPLIF-941201DB), which was previously deemed mutually-exclusive with Mendez's application for similar facilties.

- Grant of an application being submitted concurrently by Mendez requesting authority to migrate Mendez's ITFS station WNC864 from the A Group to the G Group channels using the technical configuration previously authorized by the Commission for the A Group. This application would eliminate mutual exclusivity with the above application.

- Grant of the instant modification application for the Archdiocese's WLX321. That application proposes identical technical parameters to those previously proposed in the Archdiocese's September 15, 1995 modification application for WLX315 (File No. BPLIF-950915EY), which was cut-off on October 20, 1995.

- Grant of a modification application for Caribbean's WLX315 that is being filed concurrently herewith. The instant application proposes identical technical parameters to those previously proposed in Caribbean's September 15, 1995 modification application for WLX315 (File No. BPLIF-950915EZ), which was cut-off on October 20, 1995.

- Grant of Mendez's modification application for WLX664 (File No. BMPLIF-950914MD), which was cut-off on October 20, 1995.

Questions specifically regarding the Mendez applications may be directed to Todd Gray, Esq., Dow, Lohnes & Albertson, phone: 776-2000. Inquiries or correspondence relating to the other parties' applications should be directed to the undersigned.

Respectfully submitted,

William W. Huber

Attachment
cc: Clay Pendarvis
Joyce Bernstein
Todd A. Gray, Esq.

Federal Communications Commission
Washington, D. C. 20554

Approved by OMB
3060-0062
Expires 08/31/98

COMMISSION USE ONLY: File No.

APPLICATION FOR AUTHORIZATION TO CONSTRUCT NEW OR MAKE CHANGES IN AN INSTRUCTIONAL TELEVISION FIXED AND/OR RESPONSE STATION(S), OR TO ASSIGN OR TRANSFER SUCH STATION(S)

(Read instructions before filling out Form - RETURN ONLY FORM TO FCC)

SECTION I - GENERAL INFORMATION

Name and address of applicant (See Instruction I)

Name	Address		
	201 San Jorge Street		
	City	State	ZIP Code
Catholic Archdiocese of San Juan	San Juan	PR	00903

Name and address of person to whom notices and communications should be sent:

Name	Address		
Paul J. Sinderbrand, Esq.	2300 N Street, N.W., Suite 700		
	City	State	ZIP Code
Wilkinson,Barker,Knauer & Quinn, LLP	Washington	DC	20037

1. Application for: (Check as many as apply)

*Settlement pursuant to n. 47 of March 16, 1986 Memorandum Opinion and Order in MM Docket 83-253

- ☐ New Station
- ☐ Minor Change
- ☐ Major Change *
- ☐ STL
- ☐ Receive/Response Stations
- ☐ Relay Station
- ☐ Assignment of license/transfer of control (See Instruction H)
- ☐ Booster Station
- ☐ Amendment

2. Requested facilities for new ITFS Station (See Instruction J)

a. Channel No.(s):	b. Principal area to be served: (Include School District or other descriptive location, where applicable)	c. Other ITFS channel(s) authorized to applicant in area, if any:	
		Channel(s)	Call Letter(s)

3. If requesting authority to make changes in an existing station, authorization or pending application:

a. Call letters:	b. Pending application file number	c. Channel No.(s)	d. Principal area served:
WLX321		A1,A2,A3,A4	Aguas Buenas, PR

e. If this application is for changes in an existing authorization, complete Section I and any other sections necessary to show all substantial changes in information filed with the Commission in prior applications. In the space below, check Sections submitted herewith. As to Sections not submitted herewith, refer to the prior application containing the requested information, in accordance with Instruction K.

	Reference (File No./Para. No./Date)		Reference (File No./Para. No./Date)
☐ Section II	BPLIF-910116DB WLX321	☒ Section V	
☐ Section III	BPLIF-910116DB WLX321	☐ Section VI	BMPLIF-950915EY WLX321
☐ Section IV	BPLIF-910116DB WLX321	☐ Section VII	N/A

Have there been any substantial changes in the information incorporated in this application by reference? ☐ Yes ☒ No

If Yes, submit an Exhibit giving full particulars. Exhibit No.

4. If this application is for consent to an assignment of license or transfer of control of a licensee, submit the following, as an Exhibit:

a. A brief narrative description of the transaction. Exhibit No.

b. A copy of the contract or agreement for sale of the assets or transfer of control. (If there is only an oral agreement, reduce the terms to writing and attach.) Exhibit No.

c. Station(s) being assigned have had their license(s) renewed through (date(s)): _____

THE APPLICANT hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934.)

THE APPLICANT represents that this application is not filed for the purpose of impeding, obstructing, or delaying determination on any other application with which it may be in conflict.

THE APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations, and that all the exhibits are a material part hereof and are incorporated herein as if set out in full in the application.

CERTIFICATION

By checking Yes, the applicant certifies that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, or, in the case of a non-individual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits that includes FCC benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. Section 1.2002(b). ☒ Yes ☐ No

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Name of Applicant	Signature
Catholic Archdiocese of San Juan	
Title: Archbishop of San Juan	Date: 8-6-98

If applicant is represented by legal and/or engineering counsel, state name(s) and address(es):

Legal: Paul J. Sinderbrand, Esq.
Wilkinson, Barker, Knauer & Quinn, LLP
2300 N Street, N.W., Suite 700
Washington, DC 20037

Engineering: Hardin & Associates
1300 Diamond Springs Road, #600
Virginia Beach, VA 23455

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION V ENGINEERING DATA	Name of Applicant Catholic Archdiocese of San Juan	For Commission Use Only File No.

1. Purpose of authorization applied for: (indicate by check mark)

☐ (a) Construct a new station ☐ (b) Utilize a temporary fixed station (See Instruction S)

☒ (c) Modify an existing authorization or application to make changes in the following:

☐ 1. Transmitting location ☐ 5. Low Power Relay Station(s) ☐ 9. Channels: ☐ Add ☐ Change

☐ 2. Transmitter antenna type, gain or directivity ☐ 6. Protected Service Area ☐ 10. Other (describe below:

☒ 3. Transmitting antenna height ☒ 7. EIRP

☐ 4. Add receive sites ☐ 8. Response/receive station(s)

File number and call of authorization or application to be modified: WLX-321

NOTE: In applications for changes in existing authorizations, only the following items pertinent to the proposed changes need to be completed.

2. Facilities requested:

NOTE: Use a separate column for each transmitter located at the site specified in Item 3 below. Include only transmitters having a common antenna site in this application. A separate application is required for each different transmitter location.

(a) Transmitter Identification No.	T1	T2	T3	T4	T5 (for modification of existing facilities only)
(b) Channel No. [1]	A1	A2	A3	A4	
(c) Frequency Offset and Frequency Stability [2]	N/A / +/- 1 kHz	N/A / +/- 1 kHz	N/A / +/- 1 kHz	N/A / +/- 1 kHz	
(d) Station Purpose [3]	Originating	Originating	Originating	Originating	
(e) Signal Source (For relay station only) [4]	N/A	N/A	N/A	N/A	
(f) Transmitter Make and Model No. [5]	EMCEE TTS10HS	EMCEE TTS10HS	EMCEE TTS10HS	EMCEE TTS10HS	
(g) Transmitter Rated Output Power [6]	10 Watts	10 Watts	10 Watts	10 Watts	
(h) Emissions Designator [7]	Analog: Digital:	5M75C3F 6M00D7W	Analog: Digital:	250KF3E None	
(i) Proposed Transmitting Operating Output Power [8]	* 50 Watts	* 50 Watts	* 50 Watts	* 50 Watts	* TSA50HS amps used to boost power
(j) Transmitting Antenna Make and Model No. [9]	Andrew HMD12HO	Andrew HMD12HO	Andrew HMD12HO	Andrew HMD12HO	
(k) Transmitting Antenna Beam Width [10]	360	360	360	360	
(l) Transmitting Antenna Maximum Lobe Gain (dB) [11]	13.0 dBi	13.0 dBi	13.0 dBi	13.0 dBi	
(m) Transmitting Antenna Azimuth [12]	Omni	Omni	Omni	Omni	
(n) Transmitting Antenna Structure Overall Height Above Ground [13]	39.9 m	39.9 m	39.9 m	39.9 m	
(o) Transmitting Antenna Radiation Center Above Mean Sea Level [14]	528.8 m	528.8 m	528.8 m	528.8 m	
(p) Ground elevation of Transmitting Antenna (m) [15]	489.8 m	489.8 m	489.8 m	489.8 m	
(q) Transmission Losses [16]	2.0 dB	2.0 dB	2.0 dB	2.0 dB	
(r) Errective Isotropic Radiated Power (dBW) [17]	28.0 dBW	28.0 dBW	28.0 dBW	28.0 dBW	
(s) Polarization or Radiated Signals [18]	Horizontal	Horizontal	Horizontal	Horizontal	

1/ Use channel designators shown in 47 C.F.R Section 74.902 for particular frequency band limit proposed, such as A-1, A-2, A-3, etc
2/ Specify either "zero," "plus" or "minus" and the transmitting frequency stability. (NOTE: Co-channel interference defined in 47 C.F.R. Section 74.903(a)(1).
3/ Specify either "Originating," "Relay" or "STL."
4/ When station is to be used as a Relay Station, indicate source of signal; i.e., other instructional TV fixed station, educational or commercial TV station, or other class of station, by entering call or file number and location of station to be relayed.
5/ Use abbreviation of manufacturer's name with model designation.
6/ Specify output power (peak visual) in watts as rated by manufacturer.
7/ Specify emissions designator to be used.
8/ Specify proposed operating output power (peak visual).
9/ Use abbreviation of manufacturer's name with model designation.
10/ Specify the transmitting antenna beam width.
11/ Specify maximum power gain (dB) in horizontal plan with respect to isotropic radiator.
12/ Specify azimuth with respect to true north.
13/ Specify proposed overall height of the antenna tower structure above ground level in meters.
14/ Specify proposed center of radiation element above ground level in meters.
15/ Specify ground elevation at the proposed transmitting antenna structure in meters.
16/ Line loss (waveguide), combiner, etc.
17/ Specify equivalent isotropically radiated power in the direction of maximum radiation.
18/ Specify polarization of radiated signal, such as horizontal, vertical, left or right hand circular, etc.

t. Has each of the above-listed transmitters been type accepted by the FCC for this service? ☒ Yes ☐ No

If answer is No, attach a complete showing of transmitter details as an Exhibit, including technical specifications and schematic diagram. If this information is presently on file with the FCC by the manufacturer, omit such information from application and check here. ☐

Exhibit No.

3. Proposed transmitter location:

a.	City	County	State
	San Juan, PR	Aguas Buenas	PR

Address or other description of location:

Cerro Marquesa, 1 mile N-NW of Aguas Buenas, Puerto Rico

Geographical coordinates of transmitting antenna(s) to the nearest second:

North Latitude			West Latitude		
°	'	"	°	'	"
18	16	51	66	6	38

b. Will the proposed transmitting antenna supporting structure be shared with another instructional television fixed station or station of any other classification? ☒ Yes ☐ No

If Yes, list the call sign and classification of each such station:

WLX323 - ITFS, WLX315 - ITFS, WLX322 - ITFS, WHT654 - MMDS, WHT655 - MMDS, WNTF632 - MMDS, WNTB423 - MMDS, WNTB467 - MMDS

c. Attach as an Exhibit a map or maps of appropriate scale and detail (preferably U.S. Geological Survey Topograph Quadrangles) for the proposed area to be served by this station and shown drawn thereon the following:

Exhibit No. On File

(1) Scale of miles and meters.
(2) Direction of true north.
(3) Outline of school district or other area intended to be served by proposed system.
(4) Location of proposed transmitting site, accurately plotted.
(5) Location of all known radio stations (except amateur), such as FM, TV, instructional TV fixed, operational fixed, police, fire, aeronautical, etc., and known commercial or government receiving sites, located within 1000 feet of the proposed site. List all AM stations within 2 miles of the proposed site.
(6) Location of each receiving, response, or low power relay station intended to be served by this station. Each receiving or response station location should be identified by an individual symbol, such as R1, R2, etc. (for receiving locations) and RT1, RT2, etc. (for each location having response transmitters). Low power relay stations can be identified by LPR1, LPR2, etc.

NOTE: Where the receiving, response stations, or low power relay station sites for the proposed system are so widely separated geographically that to show them on the same or several maps would result in an unwieldy and voluminous exhibit, it will be acceptable to furnish a reduced composite exhibit consisting of a sketch drawn approximately to scale showing the azimuthal and distance relationship between the transmitting and receiving, response station. and relay, if used. In any event, the sites shall be shown plotted on a map as described above.

d. Attach, as Exhibits, a map or sketch, drawn to scale, showing the boundaries of all local and county, public and private school districts in and adjoining the area to be served, and the location or locations of the proposed transmitters. Since it is the purpose of the required maps or sketches only to show the geometric configuration of the proposed ITFS system and the pattern of school districts in which separate ITFS systems may be needed, they should not be cluttered with unnecessary details. Main roads may be shown for the purpose of relating the simple map or sketch with maps showing more detail. Major topographic features which affect the choice of transmitting sites, or would serve to contain potential interference, should be indicated.

Exhibit Nos. On File

(1) Attach, as Exhibits, separate vertical plan views of the antenna installation of the transmitting and each receiving low power relay station or response station location proposed, showing the ground elevation of the site above mean sea-level, the height above ground of any building or other man-made structure on which the antenna(s) will be mounted, giving separate vertical dimensions for the building or other existing structure which may be used, and the entire height above ground of the tower or mast proposed to be erected to support the antenna(s). Indicate the overall height above ground for each antenna and its geographical coordinates. Each sketch shall be prepared on an 8 1/2 x 11 inch sheet. The reference numbers used above, such as T1, T2, R1, R2, RT1, RT2, etc., should be used to identify the various transmitting, receiving, and response station locations. Low power relay stations should be shown as LPR1, LPR2, etc.

Exhibit Nos. 1

(2) With each vertical plan view for the transmitting antenna(s), associate a separate 8 1/2 x 11 inch sheet containing a polar diagram of the horizontal relative FIELD pattern and indicate the direction of true north with respect to the proposed antenna orientation. Also label the polar diagram at the appropriate point with the maximum horizontal radiation lobe power gain expressed in dB with respect to an isotropic radiator.

(3) Receiving antennas that are mounted on buildings which would not increase the overall structure height more than 20 feet may be shown on a single exhibit and labeled as a typical receive site(s) for such designated sites. The geographical coordinates need not be specified on this Exhibit.

(4) Attach as an Exhibit a polar diagram of the radiation pattern (relative field) in the horizontal plane of the transmitting antenna showing clearly the correct relationship between the major lobe or lobes and the minor lobes of radiation and a tabulation of the pattern at every ten degrees and all maxima and minima. If a non-directional transmitting antenna will be employed (i.e., an antenna with an approximately circular radiation pattern), check here ☒ and omit polar diagram and tabulation. Also, attach for each receive antenna the plane and cross polarization antenna gain pattern envelope and a tabulation of these patterns at every two degrees from 0 to 180 degrees in dB gain below the maximum. If the antennas manufacturer and model number are on the Commission's list of common "off-the-shelf" directional antennas, check here ☐ and omit those polar diagram(s) and tabulation(s).

Exhibit No.

NOTE: The receive sites are to be listed in increasing order by latitude degrees, latitude minutes, latitude seconds, longitude degrees, longitude minutes and longitude seconds.

e. Attach as an Exhibit a list of all existing and pending channel and adjacent channel stations considered for this application.

Exhibit No. E

Attach as an Exhibit, a cochannel interference analysis showing that this proposal provides protection to all existing stations and pending applications (47 C.F.R. Section 74.903).

Exhibit No. E

Attach as an Exhibit, an adjacent channel interference analysis showing that this proposal provides protection to all existing stations and pending applications (47 C.F.R. Section 74.903).

Exhibit No. E

f. If this proposal does not provide protection to an existing station in compliance with 47 C.F.R. Section 74.903, submit as an Exhibit an agreement between the station licensee and the applicant herein to resolve any objectionable interference caused to the existing station by this proposal.

Exhibit No. E

If this proposal does not provide protection to other pending applications, submit as an Exhibit an agreement between the applicant(s) to accept or resolve any mutual or objectionable interference between the proposed operations.

Exhibit No. E

4. If applicant is leasing excess capacity to a wireless cable operator pursuant to 47 C.F.R. Section 74.931(e)(2), is protected service area as defined in 47 C.F.R. Section 21.902(d) requested? ☒ Yes ☐ No

5. Pursuant to Part 77 of the Federal Aviation Regulations, is notification to the FM required for the construction proposed herein? If Yes, the FAA has been notified of certain construction or alteration of antenna structures and Form FAA-7460-1 was filed with the regional office located in: ☐ Yes ☒ No

City, State	Date

When FAA clearance is received, please submit a copy to be filed with application.

6. Does this application propose to construct or modify a station in an area where radio use is restricted under 47 C.F.R. Section 73.1030? ☒ Yes ☐ No

If Yes, has the appropriate authority been notified? Give name of authority notified and date of notification.

Name	Date
Interference Office, Arecibo Observatory, Arecibo, PR. 00613	July 21, 1998

7. Would a Commission grant of this application come within 47 C.F.R. Section 1.1307, such that it may have a significant environmental impacts (See Instruction T.)

☐ Yes ☒ No

Exhibit No.

If Yes, submit as an Exhibit an Environmental Assessment required by 47 C.F.R. Section 1.1311.

If No, explain briefly.

See Exhibit E

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Name	Telephone Number (include area code)
Michael E. Woodley	(757) 464 - 1817
Address Hardin & Associates, Inc., 1300 Diamond Springs Rd., Suite 600	Signature Michael E. Woodley
City, State (include ZIP Code) Virginia Beach, VA 23455	Date July 1, 1998

☐ Technical Director

☐ Registered Professional Engineer

☒ Consulting Engineer

☐ Chief Operator

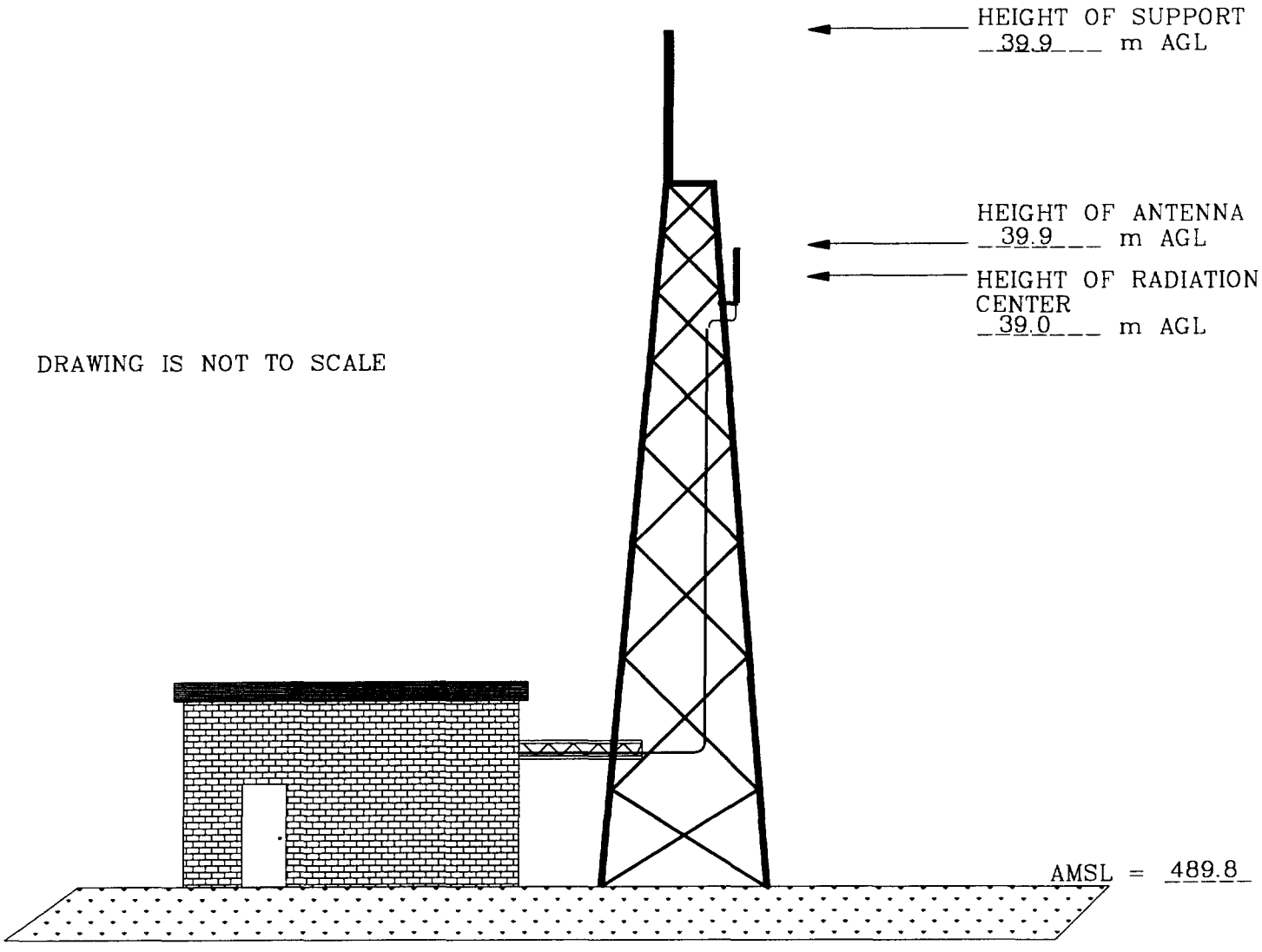


Exhibit 1

SITE: San Juan, PR

N. LATITUDE: 18:16:51 W. LONGITUDE: 66:06:38

ELEVATION 489.8 m AMSL ANTENNA TYPE: ANDREW HMD12HO

HGT OF ANTENNA 39.9 m AGL HGT OF RADIATION CENTER 39.0 m AGL

HGT OF SUPPORT STRUCTURE 39.9 m AGL

ENGINEERING STATEMENT OF MICHAEL E. WOODLEY IN CONNECTION WITH THE SETTLEMENT OF MUTUALLY EXCLUSIVE APPLICATIONS AND INTERFERENCE CONFLICTS AND IN SUPPORT OF A MODIFICATION OF THE LICENSE FOR ITFS STATION WLX-321 CATHOLIC ARCHDIOCESE OF SAN JUAN A1, A2, A3, A4 AGUAS BUENAS, PR

INTRODUCTION

The Catholic Archdiocese of San Juan (the "Archdiocese") the licensee of Instructional Television Fixed Service station WLX321 (Aguas Buenas, PR), has entered into a Settlement Agreement with the University System / Ana G. Mendez Foundation ("Mendez"), WHTV Broadcasting Corp. ("WHTV") and the Caribbean University, pursuant to which the parties have agreed on a settlement of certain mutually-exclusive ITFS applications and interference disputes that are pending before the FCC. Provided that the Commission approves of this settlement, the parties' ITFS and MDS facilities would be operated in a coordinated manner so as to avoid interference among their systems.

This modification application is an integral component of that settlement and proposes to increase the total output power and antenna centerline height of WLX321. WLX321 operates in conjunction with the San Juan wireless cable system operated by WHTV. Proposals are currently pending before the Commission to make similar changes to the other ITFS stations at Aguas Buenas. Further, the Commission has already authorized the MDS stations that are part of the San Juan system to implement similar upgrades, but WHTV and its affiliated licensees have been unable to implement those upgrades until similar modifications can be made for the colocated ITFS stations.

PROPOSED SYSTEM

This application requests major modifications to WLX-321, a licensed ITFS station utilizing the A Group of channels for signal origination from a site located in San Juan, PR. Other pertinent details regarding the system configuration of the modified station are as follows:

	Current	Proposed
Channels:	A1, A2, A3, A4	No Change
Transmitter site		
Latitude:	18° 16' 51" N	No Change
Longitude:	66° 06' 38" W	No Change
Transmitter Power:	40.0 dBm (10.0 W)	47.0 dBm (50.0 W)

	Current	Proposed
System Losses:	1.2 dB	2.0 dB
Transmitting Antenna(s)		
Manufacturer:	Andrew	No Change
Model:	HMD12HO	No Change
Pattern:	Omni	No Change
Beam Tilt:	0.5°	No Change
Polarization:	Horizontal	No Change
Orientation:	N/A	No Change
Height to center (AGL):	54 ft (16.5 m)	128 ft (39.0 m)
Ground elevation (AMSL):	1607 ft (528.8 m)	No Change
Maximum gain:	13.0 dBi	No Change
Frequency Offset:	None	No Change
Frequency Stability:	±1 kHz	No Change
Emissions Designator - Video:		
Analog:	5M75C3F	No Change
Digital:	6M00D7W	No Change
Emissions Designator - Audio:		
Analog:	250KF3E	No Change
Digital:	None	No Change
E.I.R.P. (MAX):	51.8 dBm (151.4 W)	58.0 dBm (631.0 W)

RADIO STATIONS WITHIN TWO MILES OF PROPOSED STATION

A listing of all FM or TV currently authorized or pending applications within 1000 feet of the herein modified station and all AM currently authorized or pending applications within 2 miles of the herein modified station can be found in the attached Figure 1. Also included in Figure 1 is a listing of all ITFS, MMDS, MDS, and OFS licensees and pending applications within one hundred fifty (150) miles of the herein modified station.

INTERFERENCE EVALUATIONS

The potential cochannel and adjacent channel interference with stations in the ITFS or MMDS was investigated by searching the FCC ITFS and MMDS status lists to identify all currently authorized stations and stations for which applications are pending in order to determine what analyses, if any, are required by Section 74.903 of the Commission's Rules. The search included MMDS applicants which lost a lottery but which may, due to dismissal of the tentative selectee, be selected at a later date.

Cochannel operation within fifty (50) miles.

Section 74.903(b)(1)(ii) mandates that all receive sites of any cochannel station within fifty (50) miles of the herein modified station be reviewed for possible cochannel interference.

The following cochannel ITFS stations are located within fifty (50) miles of the herein modified station:

Ch.	Call Sign/ File #	Licensee	Location	Dist. (mi.)
A1-A4	WNC864	University System of Ana	Cayey, PR	8.9
A1-A4	951020WN	Catholic Diocese of Cagu	Gurabo, PR	10.9
A1-A4	WLX661	University System Mende	Jayuya, PR	31.6

The receive sites of the above stations were made the subject of an interference study outlined as follows. The free space Desired-to-Undesired (D/U) signal ratio was calculated at each receive site. A receive antenna height of either 50 feet AGL or the height specified in the above referenced license/application, whichever higher, and antenna directivity, as defined in Figure One associated with Section 74.937(a) of the Commission's rules or the manufacturers published specifications, were employed at each receive point. Only points with unobstructed electrical path (including receive antenna height as defined above and terrain characteristics) to the herein modified station were considered.

The criterion used to judge the existence of interference was as follows:

Cochannel 45 dB or less D/U ratio

This criterion is based on Section 74.903(a)(1) of the Rules.

As can be seen in Figure 2, station WNC864 will experience interference in those areas with unobstructed electrical path, therefore, pursuant to paragraph 74.903(b)(4), a statement of no objection from WNC864 may be submitted. The licensee of WNC864 and the applicant of the herein modified station have entered into a settlement agreement pursuant to which the licensee of WNC864 has agreed to migrate from the A group to the G group channels. A copy of the settlement agreement is attached hereto as Exhibit F.

The results of the interference study for proposed station 951020WN is shown in Figure 2 along with path profiles showing excess path loss from the Longley-Rice propagation model for each receive site as necessary. Certain receive sites of proposed station 951020WN as defined in the detailed interference study may require receive antenna upgrades to meet the 45 dB requirement. The applicant of the herein modified station agrees to pay all costs associated with the upgrades.

The results of the interference study for station WLX661 is shown in Figure 2 along with path

profiles showing excess path loss from the Longley-Rice propagation model for each receive site as necessary. The receive sites of the study stations do not have a path to the herein modified station or exceed the required D/U ratio and will incur no interference.

No other such stations were identified; therefore, no further ITFS interference studies were conducted in this case.

Unobstructed electrical path to receive sites of a Cochannel operation.

Section 74.903(b)(1)(I) mandates that any cochannel station to whose receive sites the herein modified station has an unobstructed electric path be reviewed for possible cochannel interference.

No such stations were identified; therefore, no ITFS interference studies were conducted in this case.

Cochannel operation requesting PSA protection.

Section 74.903(b)(5) mandates any cochannel station or application requesting a protected service area (PSA) as described in section 21.902(d) be reviewed for possible cochannel interference.

No such stations were identified; therefore, no ITFS interference studies were conducted in this case.

Adjacent channel operation within fifty (50) miles.

Section 74.903(b)(1)(ii) mandates that all receive sites of any adjacent channel ITFS station within fifty (50) miles of the herein modified station be reviewed for possible adjacent channel interference.

The following adjacent channel ITFS station(s) are within fifty (50) miles of the herein modified station:

Ch.	Call Sign/ File #	Licensee	Location	Dist. (mi.)
B1-B4	WLX323	American University of PR	Aguas Buenas, PR	0.0
B1-B4	950215DQ	HITN	Jayuya, PR	32.5

The herein proposed modified station will be collocated with station WLX323. WLX323 currently has a modification pending before the Commission that proposes identical facilities as the herein proposed station. If the pending modification to WLX323 and the modification

proposed herein are authorized by the Commission, the desired to undesired ratio at all receive sites will be 0 dB and no adjacent channel interference will be incurred by either station.

The receive sites of the remaining station 950215DQ were made the subject of an interference study outlined as follows. The free space Desired-to-Undesired (D/U) signal ratio was calculated at each receive site. A receive antenna height of either 50 feet AGL or the height specified in the above referenced license/application, whichever higher, and antenna directivity, as defined in Figure One associated with Section 74.937(a), were employed at each receive point. Only points with unobstructed electrical path (including receive antenna height as defined above and terrain characteristics) to the herein modified station were considered.

The criterion used to judge the existence of interference was as follows:

Adjacent Channel 0 dB or less D/U ratio

This criterion is based on Section 74.903(a)(2) of the Rules.

The results of the interference study are shown in Figure 3 along with path profiles showing excess path loss from the Longley-Rice propagation model for each receive site as necessary. The receive sites of the study stations do not have a path to the herein modified station or exceed the required D/U ratio and thus will incur no interference.

No other such stations were identified; therefore, no further ITFS interference studies were conducted in this case.

Adjacent channel ITFS operation requesting PSA protection.

Section 74.903(b)(5) mandates any cochannel station or application requesting a protected service area (PSA) as described in section 21.902(d) be reviewed for possible cochannel interference.

The following stations within 50 miles requested PSA protection in writing as required by section 74.903(e) of the Rules and were reviewed for possible cochannel interference:

Ch.	Call Sign/ File #	Licensee	Location	Dist. (mi.)
B1-B4	WLX323	American University of PR	Aguas Buenas, PR	0.0
B1-B4	950215DQ	HITN	Jayuya, PR	32.5

A radio shadow map was constructed to identify which of the above listed stations have unobstructed electrical paths into their PSA's. The shadow map is attached as Figure 4. The shadow map reveals that the above listed stations have unobstructed electrical paths into their PSAs and require further analysis.

The herein proposed modified station will be collocated with station WLX323. WLX323 currently has a modification pending before the Commission that proposes identical facilities as the herein proposed station. If the pending modification to WLX323 and the modification proposed herein are authorized by the Commission the desired to undesired signal ratio at all points within the PSA will be 0 dB and no adjacent channel interference will be incurred by either station.

A PSA interference study for proposed station, 950215DQ, with unobstructed electrical path from the herein modified station, was conducted as follows. The Free Space Desired-to-Undesired (D/U) Signal ratio was calculated at a number of specific points within the PSA of the study station. The points were defined as existing along radials of 10 degree separation with a 1.4 mile point to point separation along each radial. The radials were placed at 10 degree intervals around the entire 360 degrees of the PSA of the study station. A receive antenna height of 30 feet AGL and antenna directivity as required defined by Figure One associated with Section 21.902(f)(3) of the Rules was applied. Calculations were performed for all points within the PSA even though some points do not have unobstructed electrical path to the herein modified station

The criterion used to judge the existence of interference was as follows:

Adjacent channel 0 dB or less D/U ratio

This criterion is based on Section 74.903(a)(2) and 21.902(f)(2) of the Rules.

The results of the interference analyses are attached in Figure 3. As the results show, the D/U ratio at all points with unobstructed electrical path to the analyzed stations exceed the 0 dB requirement and no interference will be caused by the herein modified station.

No other such stations were identified; therefore, no further ITFS interference studies were conducted in this case.

Protection of adjacent channel MMDS stations.

Section 74.903(b)(1)(ii) also mandates that any adjacent channel MMDS station within fifty (50) miles of the herein modified station be reviewed for possible adjacent channel interference.

No such stations were identified; therefore, no MMDS interference studies were conducted in this case.

Protection of commercial utilization of cochannel ITFS stations

Section 74.990(f) also mandates that any cochannel utilization of ITFS frequencies by wireless cable entities be afforded the same interference protection as described in section 21.902.

No such stations were identified; therefore, no MMDS interference studies were conducted in this case.

PROPOSED OPERATION WITHIN 50 MILES OF INTERNATIONAL BORDER.

As required by Section 74.903(b)(3), an analysis of possible adverse impact upon Mexican or Canadian communications is required if the herein modified operation is within 50 miles of the Mexican or Canadian borders.

The herein modified station is not within 50 miles of the Canadian or Mexican borders; therefore, no analysis was required.

TRANSMIT ANTENNA PATTERN

The applicant has proposed a transmit antenna with an omnidirectional broadcast pattern. As such, no pattern plot is attached.

REQUEST FOR INTERFERENCE PROTECTION PURSUANT TO SECTION 21.902(d)

Pursuant to the Reconsideration Order in Gen. Docket Nos. 90-54 and 80-113, 69 RR2d 1477, paragraph 10 (Oct. 25, 1991), the applicant hereby requests additional interference protection for leased "wireless cable" operations for all channels for a service area with the same dimensions as the protected service area of an MDS station as provided by Section 21.902(d) of the Commission's Rules, 47 C.F.R. Section 21.902(d). Nothing in this request is intended to waive or limit interference protection for ITFS operations under part 74 of the Commission's Rules, 47 C.F.R. Section 74.1 et. seq.

STATION IDENTIFICATION

As mandated by Section 74,982(b) of the Rules, the herein modified station will be equipped with automatic station identification equipment to provide either visual or aural identification.

UNATTENDED OPERATION

The modified station will utilize unattended operation. As such, the transmitters will be equipped with circuits that permit them to radiate only when the signal intended to be transmitted is present at the input terminals.

RADIO USE RESTRICTED BY SECTION 73.1030 OF THE RULES

The modified station is within the NRAO Quiet Zone of the Arecibo Observatory, Arecibo PR. On July 21, 1998, the Interference Office of the Arecibo Observatory received a notification of the intent to file this application. The notification contained the technical parameters, as required under Section 73.1030 of the FCC's rules.

The modified station will not exceed the field strengths specified for the FCC monitoring station listed in Section 0.121(c) of the Rules.

ENVIRONMENTAL IMPACT

The proposed system will not require an EA for any of the reasons stated in Section 1.1307(b) of the Rules.

FAA NOTIFICATION

As defined by Federal Aviation Regulations (FAR) Part 77, the addition of the proposed transmit antenna does not require FAA notification. The addition of the transmit antenna does not increase the overall height of the support structure.

STATEMENT OF ENGINEER

This engineering statement was prepared by Michael E. Woodley, who is a Consulting Engineer with the firm of Hardin and Associates, Inc., a professional engineering firm licensed in the Commonwealth of Virginia and whose credentials are a matter of record with the Commission. The information contained herein was prepared by him or under his direction and it is true and correct to the best of his knowledge.

Michael E. Woodley

HARDIN AND ASSOCIATES, INC.

Date: June 1, 1998

FIGURE 1

FREQUENCY UTILIZATION INFORMATION

Site survey program within 2.0 mi

Title: C084-98-0009 SANJUAN, PR (D2) Coordinates: 18-16-51 66-06-38

The nearest FCC monitoring station is 14 mi distant at Sabana Seca, PR

This site is 2050 mi distant from the US/Mexican border.

This site is 1830 mi distant from the US/Canadian border.

Type	Call sign	Chan	Auth	Height (ft)	Power (kW)	City	State	Bear. (deg)	Dist. (mi)
PL						Cerro Marquesa	PR	291.6	.16
PL						Escuela Luis Santaella	PR	125.1	1.07
PL						Escuela Sonadora Alta	PR	321.1	1.30
PL						Escuela Sonadora	PR	231.0	1.31
PL						Cerro Del Chicharo *	PR	263.5	1.36
AM	WBMJ	1190	LIC	199.7	10	SAN JUAN	PR	357.4	4.76
FM	WKAQ-FM	284	LIC	1220	50	San Juan	PR	.0	.00
FM	WCAD	289	LIC	1100	50	San Juan	PR	291.6	.16
FM	WIOA	260	LIC	978	50	San Juan	PR	109.4	1.10
FM	WFID	239	LIC	939	50	Rio Piedras	PR	120.0	1.96
FM	WRTU	209	LIC	799	50	San Juan	PR	120.0	1.96
TV	W62CW	62	CP	967.8	4.60	San Juan	PR	.0	.00
TV	WLII	11	LIC	1164	316	Caguas	PR	291.6	.16
TV	WLII	56		1164	707	Caguas	PR	291.6	.16
TV	WUJA	58	LIC	1079	55	Caguas	PR	179.9	.21
TV	WUJA	57		1079	50.1	Caguas	PR	179.9	.21
TV	WRWR-TV	30	LIC	941.6	2630	San Juan	PR	109.6	1.20
TV	WRWR-TV	31		941.6	75.8	San Juan	PR	109.6	1.20
TV	WTCV	18	APP	902.2	447	San Juan	PR	109.6	1.20

Type	Name/ Location	HtAGL (ft)	HtAMSL (ft)	City	State	Bear. (deg)	Dist. (mi)
TW	1.5 MI N	303	1976	AGUAS BUENAS	PR	.0	.00
TW		200	1863	AGUAS BUENAS	PR	90.0	.02
TW	1.5 MI NW OF	254	1910	AGUAS BUENAS	PR	297.1	.04
TW		285	1925	SAN JUAN	PR	279.9	.11
TW	CERRO MARQUESA 5.35	243	1917	CAGUAS	PR	291.6	.16
TW	1.8 MILES	665	1912	GUAYNABO	PR	290.2	.39
TW		359	1868	PONCE	PR	205.5	.47
TW	1.5MLS NORTH-NORTHWE	359	1868	AGUAS BUENAS	PR	206.4	.49
TW	P.R. RD. NO. 797	228	1704	AGUAS BUENAS	PR	109.4	1.10
TW	0.4 MI NE	306	1716	SAN JUAN	PR	105.9	1.19
TW	1.3 M ENE OF AGUAS	289	1667	AGUAS BUENAS	PR	120.1	1.92
TW	1.3 M ENE OF	337	1715	AGUAS BUENAS	PR	120.0	1.96
HP	BAYAMON REGIONAL HOS		110	BAYAMON	PR	334.7	6.58

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2) Latitude: 18-16-51
Frequency span: 2150 to 2686 MHZ Longitude: 66-06-38
Database: 05/27/98

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft	ERP-W	Latitude	Br-to	Dist
City of license	St	FCC file number		AMSL	TPO-W	Longitude	-from	(mi)
KNSC374	CP	JUNGON JUNG	1	6939		18-16-51	.0	.0
SAN JUAN	PR	BMDP-960510JE		8612		66-06-38	.0	

BTA- B455; CMMN CXR; CP Granted 08/16/96 per FCC release #D-871 dated 08/16/96

KNSC374	CP	JUNGON JUNG	1	151		18-16-51	.0	.0
SAN JUAN	PR	BMDMP-970929YL	1824			66-06-38	.0	

BTA - 488; NON CMMN CXR; GRD CP LIC; CP Granted 01/14/98 per FCC release #D-966-A dated 01/14/98

WFY440	LIC	CARIBBEAN MDS COMPANY	1	75	H	18-10-30	257.0	32.3
PONCE	PR	50133-CM-L-84	4416	10		66-35-22	76.8	

Ant #1: Andrew 62422; TX: Emcee TTS-20; LIC EXPIRES 5,1,91; License Granted 02/21/85
Principal: ROHEL PASCUAL
Licensee- 1725 ANDRES BELLO CUPEY
Address: SAN JUAN,PR 00926
Lawyer: FRANCISCO A. ROSA-SILVA (809) 758-1040

KNSC341	CP	GRAND WIRELESS CO.	1	194		18-11-00	264.6	69.8
MAYAGUEZ	PR	BMDP-960510IY		197		67-10-04	84.3	

BTA- B489; N CMMN CXR; CP Granted 08/16/96 per FCC release #D-871 dated 08/16/96

WMH984	CP	BHR WIRELESS	1	98	125.9V	18-21-34	85.7	74.9
SAINT THOMAS	VI	51043-CM-P-90	1578	10		64-58-22	266.0	

Ant #1: Andrew HMD12VO @ 0 deg; TX: Comwave SBO20-MRC; Ant #2: ; TPO: 1 W; HT agl: 30 m; Pol: V; TX: Comwave SBO20-MRC; N CMMN CXR; CP Granted 02/12/92
Principal: C/O GARY YOUNG
Licensee- 1205 SECOND ST.
Address: MOUNDSVILLE, WV 26041
Engineer: RICHARD L. VEGA,JR. (407) 682-7104
Lawyer: ABACUS COMMUNICATIONS COMPANY (202) 462-3680

B488	CP	JUNGON JUNG	2A	151		18-16-51	.0	.0
SAN JUAN	PR	BMDP-970929YK		1824		66-06-38	.0	

BTA - 488; NON CMMN CXR; GRD CP LIC, NO CALL SIGN ASSIGNED YET(D-966-A-1/14/98); CP Granted 01/14/98 per FCC release #D-966-A dated 01/14/98

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2) Latitude: 18-16-51
Frequency span: 2150 to 2686 MHZ Longitude: 66-06-38
Database: 05/27/98

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft	ERP-W	Latitude	Br-to	Dist
City of license	St	FCC file number		AMSL	TPO-W	Longitude	-from	(mi)
WLX321	CP	CATHOLIC ARCHDIOCESE OF S	A1-A4	52	151.4H	18-16-51	.0	.0
AGUAS BUENAS	PR	BPLIF-910116DB	1660	10		66-06-38	.0	

Ant #1: Andrew HMD12HO; TX: Emcee TTS10GA; EXT 930203DA GR 3/10/93(21590 3/16/93); 950915EY DISM 10/21/97(44104 10/24/97); CP Granted 08/16/91 per FCC release #21190 dated 08/22/91
Principal: DR. PATRICIA F. ASHBY
Licensee- 201 SAN JORGE ST
Address: SAN JUAN,PR 00903
Engineer: ANTONIO PEREZ (809) 722-7815
Lawyer: BROWN,FINN & NIETERT (202) 887-0600

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft	ERP-W	Latitude	Br-to	Dist
City of license	St	FCC file number		AMSL	TPO-W	Longitude	-from	(mi)
WNC864	CP	UNIV SYSTEM OF ANA G. MEN	A1-A4	16	281.8V	18-09-16	167.3	8.9
CAYEY	PR	BPLIF-940317DJ	2457	10		66-04-50	347.3	

Ant #1: ; TX: Comwave R-10A-1; CP Granted 04/22/97 per FCC release dated 01/23/98
Principal: TODD D GRAY
Licensee- APARTADO 21345
Address: RIO PIEDRAS, PR 00928
Engineer: JOHN F.X. BROWNE (810) 642-6226
Lawyer: DOW , LOHNES & ALBERTSON

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft	ERP-W	Latitude	Br-to	Dist
City of license	St	FCC file number		AMSL	TPO-W	Longitude	-from	(mi)
NEW	APP	CATHOLIC DIOCESE OF CAGUA	A1-A4			18-16-54	89.7	10.9
GURABO	PR	BPLIF-951020WN				65-56-42	269.7	

Tendered per FCC release #* dated 11/09/95

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft	ERP-W	Latitude	Br-to	Dist
City of license	St	FCC file number		AMSL	TPO-W	Longitude	-from	(mi)
WLX661	CP	UNIV SYSTEM MENDEZ ED'L F	A1-A4	276		18-10-10	256.0	31.6
JAYUYA	PR	BPLIF-920303DA	4459	50		66-34-36	75.8	

Ant #1: ; TX: Intl TX Sys 1610D; Ant #2: ; TX: Intl TX Sys 1657D; CP Granted 09/16/92 per FCC release #21473 dated 09/23/92
Licensee- APARTADO 21345
Address: RIO PIEDRAS, PR 00928
Engineer: JOHN BROWNE (313) 642-6226
Lawyer: DOW,LOHNES & ALBERTSON (202) 857-2500

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft	ERP-W	Latitude	Br-to	Dist
City of license	St	FCC file number		AMSL	TPO-W	Longitude	-from	(mi)
WHR728	CP	COLLEGE OF THE VIRGIN ISL	A1	59	H	18-21-16	85.9	74.7
CHARLOTTE AMALIE	VI	BPLIF-841226DA	1404	10		64-58-34	266.3	

Ant #1: Andrew 62070A @ 90 deg; TX: Emcee TTS10GA; Ant #2: Andrew 62071A @ 270 deg; Pol: V; CP Granted 04/24/86
Principal: DR. GEORGE A CONDON (809) 774-7200
Licensee- CHARLOTTE AMALIE
Address: SAINT THOMAS,VI 00802

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2)
Frequency span: 2150 to 2686 MHZ
Database: 05/27/98

Latitude: 18-16-51
Longitude: 66-06-38

Call / City of license	Auth	Licensee name / St FCC file number	Chan. / AMSL	C/R Ht AG-ft / TPO-W	ERP-W	Latitude / Longitude	Br-to / -from	Dist (mi)
WHR908	CP	COLLEGE OF THE VIRGIN ISL	A1	59	H	17-45-20	112.6	93.6
FRIEDENSFELD		VI BPLIF-841226DB	*****	10		64-47-55	293.0	
Ant #1: Andrew 62070A @ 90 deg; TX: Emcee TTS-10GA; Ant #2: Andrew 62071A @ 270 deg; TPO: 10 W; Pol: V; FROM CHARLOTTE AMALIE; CP Granted 05/09/88								
Licensee-		CHARLOTTE AMALIE						
Address:		SAINT THOMAS, VI 00802						
Engineer:		KESSLER & GEHMAN		(904) 332-3157				
WLX323	APP	AMERICAN UNIV OF PUERTO R	B1-B4			18-16-51	.0	.0
AGUAS BUENAS		PR BMPLIF-950707DC				66-06-38	.0	
Tendered per FCC release #23551 dated 07/18/95								
Licensee-		ROAD 2, KM. 14, HATO TEJAS						
Address:		BAYAMON, PR 00621						
WLX323	CP	AMERICA UNIVERSITY PUERTO	B1-B4	52	151.4H	18-16-51	.0	.0
AGUAS BUENAS		PR BPLIF-910116DF	1660	10		66-06-38	.0	
Ant #1: Andrew HMD12HO; TX: Emcee TTS10GA; EXT 930201DI 3/10/93(21590 3/16/93); CP Granted 08/16/91 per FCC release #21190 dated 08/22/91								
Principal:		JUAN B. NAZARIO NEGRON						
Licensee-		ROAD 2, KM. 14, HATO TEJAS						
Address:		BAYAMON,PR 00621						
Engineer:		ANTONIO PEREZ		(809) 722-7815				
Lawyer:		BROWN,FINN & NIETERT		(202) 887-0600				
NEW	APC	HISPANIC INFO & TELECOM N	B1-B4	49	141.3V	18-10-28	257.0	32.5
JAYUYA		PR BPLIF-950215DQ	4304	10		66-35-31	76.8	
Ant #1: Andrew HMD-12VO-W; TX: Comwave SB-020B								
Principal:		BENJAMIN PEREZ		(202) 462-3680				
Licensee-		449 BROADWAY, THIRD FLOOR						
Address:		NEW YORK, NY 10013						
Engineer:		SPECTRUM ANALYSIS & FREQ. ENG.		(301) 869-7969				
WNC700	CP	HISPANIC INFO & TELECOM N	B1-B4			18-19-07	272.3	70.2
AGUADILLA		PR BPLIF-950215DP				67-10-41	92.0	
CP Granted 10/20/95 per FCC release #* dated 10/26/95								

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2) Latitude: 18-16-51
Frequency span: 2150 to 2686 MHZ Longitude: 66-06-38
Database: 05/27/98

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
WNC698	CP	HISPANIC INFO & TELECOM N	B1-B4	20	141.3V	18-19-07	272.3	70.2
FAJARDO	PR	BPLIF-950215DW	2822	10		67-10-41	92.0	

Ant #1: Andrew HMD12VO-W; TX: Comwave SB-020B; PET TO DENY FLD 4/2/98 FOR BMPL IF-980312DX EXT(24218-4/13/98); CP Granted 09/12/96 per FCC release #* dated 0 9/18/96

Principal: BENJAMIN PEREZ (202) 462-3680
Licensee- 449 BROADWAY, THIRD FLOOR
Address: NEW YORK, NY 10013
Engineer: SPECTRUM ANALYSIS (301) 869-7969

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
WND210	CP	SHEKINAH NETWORK	B1-B4			17-45-20	112.6	93.6
FRIEDENSFELD	VI	BPLIF-951020JL				64-47-55	293.0	

CP Granted 10/22/97 per FCC release dated 10/28/97

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
WLX315	CP	CARIBBEAN UNIVERSITY	C1-C4	52	151.4H	18-16-51	.0	.0
AGUAS BUENAS	PR	BPLIF-910116DE	1660	10		66-06-38	.0	

Ant #1: Andrew HMD12HO; TX: Emcee TTS10GA; EXT 930125DZ GR 3/10/93(21590 3/16/ 93); 950915EZ DISM 10/23/97(44107 10/29/97); CP Granted 08/16/91 per FCC relea se #21190 dated 08/22/91

Principal: DR. ANGEL E. JUAN-ORTEGA
Licensee- CARRETERA 167, KM. 21.2
Address: BAYAMON, PR 00621
Engineer: ANTONIO PEREZ (809) 722-7815
Lawyer: BROWN,FINN & NIETERT (202) 887-0600

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
NEW	APP	UNIV SYSTEM ANA G. MENDEZ	C1-C4			18-16-54	89.7	10.9
GUARABO	PR	BMPLIF-950303DA				65-56-42	269.7	

Accepted per FCC release #16133 dated 03/14/95
Licensee- APARTADO 21345
Address: RIO PIEDRAS, PR 00928

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
WLX662	CP	UNIV SYSTEM ANA G. MEDEZ,	C1-C4	210		18-16-54	89.7	10.9
GURABO	PR	BPLIF-920303DB	1729	20		65-56-42	269.7	

Ant #1: ; TX: Intl TX Sys 160D; CP Granted 09/16/92 per FCC release #21473 d ated 09/23/92

Licensee- APARTADO 21345
Address: RIO PIEDRAS, PR 00928
Engineer: JOHN BROWNE (313) 642-6226
Lawyer: DOW,LOHNES & ALBERTSON (202) 857-2500

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2)
Frequency span: 2150 to 2686 MHZ
Database: 05/27/98

Latitude: 18-16-51
Longitude: 66-06-38

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft	ERP-W	Latitude	Br-to	Dist
City of license	St	FCC file number		AMSL	TPO-W	Longitude	-from	(mi)
WNC703	CP	UNIV SYSTEM OF ANA G. MEN	C1-C4	39	V	18-16-50	90.0	28.9
CEIBA	PR	BPLIF-940317DI	1037	20		65-40-13	270.1	

Ant #1: Bogner; TX: Comwave R-25A-1; (RELAY); CP Granted 07/31/95 per FCC release #* dated 08/15/95
Principal: TODD D GRAY
Licensee- Address: APARTADO 21345
RIO PIEDRAS, PR 00928
Engineer: JOHN F.X. BROWNE (810) 642-6226
Lawyer: DOW, LOHNES & ALBERTSON

NEW		CATHOLIC UNIV. OF PUERTO	C1-C4			18-10-28	257.0	32.5
JAYUYA	PR	BPLIF-951020MB				66-35-31	76.8	

PET FOR RECON FLD 4/2/98(24216-4/9/98)

NEW		CARIBBEAN UNIVERSITY	C1-C4			18-03-00	244.2	36.5
JARDINES DE PONCE	PR	BPLIF-951020AE				66-36-37	64.0	

WLX663	CP	UNIV SYS. THE ANA MENDEZ	C1-C4	171	604.0H	18-19-06	272.3	70.3
AGUADILLA	PR	BMPLIF-950316DL	1385	20		67-10-49	91.9	

Ant #1: Bogner B1623-H; TX: Comwave R-10A-1; Ant #2: ; Gain: 31.4 dB; HT agl: 55 m; Pol: V; CP Granted 04/06/95 per FCC release #22145 dated 05/01/95
Principal: TODD D. GRAY
Licensee- Address: APARTADO 21345
RIO PIEDRAS, PR 00928
Engineer: JOHN F.X. BROWNE & ASSOC. (810) 642-6226
Lawyer: DOW, LOHNES & ALBERTSON (202) 857-2500

WLX322	APP	PUERTO RICO MEDICAL ASSOC	D1-D4			18-16-51	.0	.0
AGUAS BUENAS	PR	BMPLIF-950707DH				66-06-38	.0	

Tendered per FCC release #23551 dated 07/18/95
Licensee- Address: 1305 FERNANDEZ JUNCOS AVE
SANTURCE, PR 00908

WLX322	CP	PUERTO RICO MEDICAL ASSOC	D1-D4	52	151.4H	18-16-51	.0	.0
AGUAS BUENAS	PR	BPLIF-910116DD	1660	10		66-06-38	.0	

Ant #1: Andrew HMD12HO; TX: Emcee TTS10GA; EXT 930201DJ GR 3/10/93(21590 3/16/93); CP Granted 08/16/91 per FCC release #21190 dated 08/22/91
Principal: CARLOS VAZQUEZ
Licensee- Address: 1305 FERNANDEZ JUNCOS AVE
SANTURCE,PR 00908
Engineer: ANTONIO PEREZ (809) 722-7815
Lawyer: BROWN,FINN & NIETERT (202) 887-0600

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2) Latitude: 18-16-51
Frequency span: 2150 to 2686 MHZ Longitude: 66-06-38
Database: 05/27/98

Call	Auth	Licensee name / City of license	St	FCC file number	Chan.	C/R Ht AG-ft / AMSL	ERP-W / TPO-W	Latitude / Longitude	Br-to -from	Dist (mi)
NEW	APP	HISPANIC INFO/TELECOM NTW D1-D4						18-18-45	83.2	18.6
RIO GRANDE			PR	BPLIF-950322DK				65-49-48	263.3	
Tendered per FCC release #16144 dated 03/28/95										
NEW	APC	HISPANIC INFO/TELECOM NTW D1-D4			49	141.3V		18-18-45	84.0	21.0
RIO GRANDE			PR	BPLIF-950316DG	3363	10		65-47-34	264.1	
Ant #1: Andrew HMD-12VO-W; TX: Comwave SB-020B; PET TO DENY FILED: (23549 7/14 /95)										
Principal:		BENJAMIN PEREZ						(202) 462-3680		
Licensee-		449 BROADWAY, THIRD FLOOR								
Address:		NEW YORK, NY 10013								
Engineer:		SPECTRUM ANALYSIS & FREQ. ENG.						(301) 869-7969		
WNC706	CP	HISPANIC INFO/TELECOM NTW D1-D4			20	141.3V		18-17-05	89.4	28.6
FAJARDO			PR	BPLIF-950322DL	1017	10		65-40-28	269.5	
Ant #1: Andrew HMD-12VO-W; TX: Comwave SB-020B; PET TO DENY FLD 4/2/98 FOR BMP LIF-980312DY EXT(24218-4/13/98); CP Granted 09/12/96 per FCC release #* dated 09/18/96										
Principal:		BENJAMIN PEREZ						(202) 462-3680		
Licensee-		449 BROADWAY, THIRD FLOOR								
Address:		NEW YORK, NY 10013								
Engineer:		SPECTRUM ANALYSIS & FREQ. ENG.						(301) 869-7969		
NEW	APP	HISPANIC INFO/TELECOM NTW D1-D4						18-17-05	89.4	30.0
FAJARDO			PR	BPLIF-950316DJ				65-39-12	269.6	
Tendered per FCC release #16141 dated 03/24/95										
NEW		HISPANIC INFO.& TELECOM. D1-D4						18-19-30	84.1	30.2
FAJARDO			PR	BPLIF-951016BP				65-39-12	264.3	
ATLAS COORDINATES USED										
NEW	APC	HISPANIC INFO/TELECOM NTW D1-D4			49	141.3V		18-10-28	257.0	32.5
JAYUYA			PR	BPLIF-950322DY	4304	10		66-35-31	76.8	
Ant #1: Andrew HMD12VO-W; TX: Comwave SB-020B; PET TO DENY FILED: (23549 7/14/ 95)										
Principal:		BENJAMIN PEREZ						(202) 462-3680		
Licensee-		449 BROADWAY, THIRD FLOOR								
Address:		NEW YORK, NY 10013								
Engineer:		SPECTRUM ANALYSIS & FREQ. ENG.						(301) 869-7969		

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2) Latitude: 18-16-51
Frequency span: 2150 to 2686 MHZ Longitude: 66-06-38
Database: 05/27/98

Call	Auth	Licensee name	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
NEW	APC	HISPANIC INFO/TELECOM NTW	D1-D4	49	141.3V	18-09-07	261.3	58.4
MARICAO	PR	BPLIF-950316DF	2851	10		66-59-18	81.1	

Ant #1: Andrew HMD-12VO-W; TX: Comwave SB-020B
Principal: BENJAMIN PEREZ (202) 462-3680
Licensee- 449 BROADWAY, THIRD FLOOR
Address: NEW YORK, NY 10013
Engineer: SPECTRUM ANALYSIS & FREQ. ENG. (301) 869-7969

Call	Auth	Licensee name	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
WNC725	CP	HISPANIC INFO/TELECOM NTW	D1-D4	30	141.3V	18-19-07	272.3	70.2
AGUADILLA	PR	BPLIF-950316DH	2831	10		67-10-41	92.0	

Ant #1: Andrew HMD12VO-W; TX: Comwave SB-020B; CP Granted 01/24/96 per FCC release #* dated 02/13/96
Principal: (202) 462-3680
Licensee- 449 BROADWAY, THIRD FLOOR
Address: NEW YORK, NY 10013
Engineer: SPECTRUM ANALYSIS (301) 869-7969
Lawyer: BENJAMIN PEREZ

Call	Auth	Licensee name	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
WHT654	CP	VICTOR GINORIO GOMEZ	E1-E4	128	629.5H	18-16-51	.0	.0
SAN JUAN	PR	50989-CM-P-95	1736	50		66-06-38	.0	

Ant #1: Andrew HMD12HO; CP Granted 02/08/96 per FCC release #D-839-A dated 02/14/96
Licensee- BOX 307
Address: HUMACOA, PR 00661

Call	Auth	Licensee name	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
WHT654	LIC	VICTOR GINORIO GOMEZ	E1-E4	118	V	18-27-00	12.0	11.9
SAN JUAN	PR	50164-CM-ML-88	128	.2		66-04-21	192.1	

Ant #1: Andrew P4F-25D @ 0 deg; TX: Intl TX Sys ITS-664; CMMN CXR; Lic. Renew Granted 09/18/95 per FCC release #D-818-A dated 09/20/95; License Amended 08/16/88
Licensee- BOX 307
Address: HUMACOA, PR 00661
Engineer: THE MDS GROUP INC (615) 588-8621

Call	Auth	Licensee name	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
WLW756	APP	ROBERT J. WALSER	E1-E4	102		18-03-37	255.6	60.8
SAN GERMAN	PR	50054-CM-P-98				67-00-20	75.3	

FROM MAYAGUEZ, PR; N-CMMN CXR; Accepted per FCC release #D-982 dated 04/15/98

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2) Latitude: 18-16-51
Frequency span: 2150 to 2686 MHZ Longitude: 66-06-38
Database: 05/27/98

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
WLW756	CP	ROBERT J. WALSER	E1-E4	141	H	18-11-15	264.6	66.5
MAYAGUEZ	PR	15612-CM-P-83		968	10	67-07-04	84.3	

Ant #1: Andrew 62111A @ 0 deg; TX: Emcee TTS-10GA; NEW MOD. TO CHG LOC TO: SAN GERMAN; CP Granted 03/30/90
Principal: ROBERT J. WALSER (809) 756-8700
Licensee- P O BOX AL
Address: SAN JUAN, PR 00936
Engineer: ROBERT J. WALSER (809) 756-8700

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
WLW756	LIC	ROBERT J. WALSER	E1-E4		V	18-11-15	264.6	66.5
MAYAGUEZ	PR	50355-CM-L-97		10		67-07-04	84.3	

Ant #1: Andrew 63013-E; TO SAN GERMAN, PR; License Granted 06/04/97 per FCC release #D-931 dated 06/04/97
Licensee- P.O. BOX AL
Address: SAN JUAN, PR 00936

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
WHT593	LIC	ROHEL PASCUAL	E1-E4		V	18-19-06	272.3	70.2
AGUADILLA	PR	51380-CM-L-96		10		67-10-42	92.0	

Ant #1: Bogner B8SB @ 30 deg; SAMSL=CRHAMSL; License Granted 08/02/96 per FCC release #D-874 dated 08/28/96
Licensee- 1725 ANDRES BELLO CUPEY
Address: SAN JUAN, PR 00926

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
WHT593	CP	ROHEL PASCUAL	E1-E4			18-19-06	272.3	70.2
AGUADILLA	PR	50624-CM-P-97				67-10-42	92.0	

CP Granted 11/26/97 per FCC release #D-959-A dated 11/26/97
Licensee- 1725 ANDRES BELLO CUPEY
Address: SAN JUAN, PR 00926

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
B491	APP	ANTILLES WIRELESS CABLE T	E1-E4	482		18-19-56	87.1	75.7
SAINT THOMAS	VI	BMDP-970416PV		643		64-57-32	267.5	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
KNSC537	LIC	ANTILLES WIRELESS CABLE T	E1-E4	89		18-21-26	85.9	76.6
SAINT THOMAS	VI	BMDL961119HD		1529		64-56-51	266.2	

BTA- B491; N CMMN CXR; BMDMP961118GW DECREASE ANT HGT(D-910-2/5/97); CP Granted 10/28/96License Granted 12/04/96 per FCC release #D-896 dated 12/04/96

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
B491	APP	ANTILLES WIRELESS CABLE T	E1-E4	49		18-22-50	84.7	77.5
SAINT THOMAS	VI	BMDP-970416PU		279		64-56-05	265.1	

BTA - 491;N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2) Latitude: 18-16-51
Frequency span: 2150 to 2686 MHZ Longitude: 66-06-38
Database: 05/27/98

Call / City of license	Auth	Licensee name / St FCC file number	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
B491	APP	ANTILLES WIRELESS CABLE T	E1-E4	33		18-19-44	87.4	79.1
SAINT THOMAS		VI BMDP-970416PW		741		64-54-24	267.8	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	E1-E4	59		18-20-47	86.5	79.2
SAINT THOMAS		VI BMDP-970415PC		860		64-54-23	266.9	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	E1-E4	98		18-18-45	88.2	79.6
SAINT THOMAS		VI BMDP-970415PB		157		64-53-55	268.6	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	E1-E4	43		18-18-57	88.1	79.8
SAINT THOMAS		VI BMDP-970415PA		62		64-53-48	268.5	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	E1-E4	49		18-20-31	86.8	81.3
SAINT THOMAS		VI BMDP-970415PD		453		64-52-27	267.2	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	E1-E4	49		18-19-02	88.1	82.8
SAINT THOMAS		VI BMDP-970416PX		135		64-51-00	268.5	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
WMH685	CP	CABARRUS TV CORPORATION	E1-E4	46	H	17-45-25	112.6	93.4
SAINT CROIX		VI 2515-CM-P-83		1142	10	64-48-00	293.0	
Ant #1: Bogner B8SO @ 0 deg; TX: Emcee TTS-10G; CP Granted 02/26/92 per FCC release #D-633-A dated 04/03/92								
Principal: GEORGE E. DE VAULT, JR.								
Licensee- 222 COMMERCE ST. P.O. BOX WKPT								
Address: KINGSPORT, TN 37662								
Engineer: HAROLD T. DOUGHERTY								
WHT655	LIC	SALA FOUNDATION, INC	F1-F4	20	H	18-16-51	.0	.0
SAN JUAN		PR 50258-CM-ML-89		1627	10	66-06-38	.0	
Ant #1: Bogner B16SO @ 0 deg; TX: Intl TX Sys ITS-GE10B; N CMMN CXR; License Granted 03/07/90; Lic. Renew Granted 01/31/96 per FCC release #D-838-A dated 02/07/96; License Amended 04/04/90								
Licensee- 43 CONCORDIA, SUITE 105								
Address: PONCE, PR 00731								

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2) Latitude: 18-16-51
Frequency span: 2150 to 2686 MHZ Longitude: 66-06-38
Database: 05/27/98

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license		St FCC file number						
WHT655	CP	SALA FOUNDATION, INC	F1-F4	128 1736	629.5H 50	18-16-51 66-06-38	.0 .0	
SAN JUAN		PR 50941-CM-P-95						

Ant #1: Andrew HMD12HO; CP Granted 02/08/96 per FCC release #D-839-A dated 02/14/96
Licensee- 43 CONCORDIA, SUITE 105
Address: PONCE, PR 00731

NEW	APP	PONCE BROADCASTING CORP	F1-F4	16 3986	H	18-09-15 66-22-15	242.9 62.8	19.2
PONCE		PR 62429-CM-P-91						

Ant #1: Andrew HMD16HC @ 180 deg; TX: composite CT-1600; Accepted per FCC release #D-654 dated 07/29/92
Principal: JULIO CONESA (809) 842-3038
Licensee- P O BOX 7213
Address: PONCE, PR 00732
Lawyer: FLETCHER, HEALD (202) 828-5700

B491	APP	ANTILLES WIRELESS CABLE T	F1-F4	482		18-19-56	87.1	75.7
SAINT THOMAS		VI BMDP-970416PZ		643		64-57-32	267.5	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

KNSC536	LIC	ANTILLES WIRELESS CABLE T	F1-F4	89		18-21-26	85.9	76.6
SAINT THOMAS		VI BMDL-961119HJ		1529		64-56-51	266.2	

BTA- B491; N CMMN CXR; BMDMP961118GU DECREASE ANT HGT(D-910-2/5/97); CP Granted 10/28/96License Granted 12/04/96 per FCC release #D-896 dated 12/04/96

B491	APP	ANTILLES WIRELESS CABLE T	F1-F4	49		18-22-50	84.7	77.5
SAINT THOMAS		VI BMDP-970416PY		279		64-56-05	265.1	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

B491	APP	ANTILLES WIRELESS CABLE T	F1-F4	33		18-19-44	87.4	79.1
SAINT THOMAS		VI BMDP-970416QA		741		64-54-24	267.8	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

B491	APP	ANTILLES WIRELESS CABLE T	F1-F4	59		18-20-47	86.5	79.2
SAINT THOMAS		VI BMDP-970415PG		860		64-54-23	266.9	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

B491	APP	ANTILLES WIRELESS CABLE T	F1-F4	98		18-18-45	88.2	79.6
SAINT THOMAS		VI BMDP-970415PF		157		64-53-55	268.6	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

B491	APP	ANTILLES WIRELESS CABLE T	F1-F4	43		18-18-57	88.1	79.8
SAINT THOMAS		VI BMDP-970415PH		62		64-53-48	268.5	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2)
Frequency span: 2150 to 2686 MHZ
Database: 05/27/98

Latitude: 18-16-51
Longitude: 66-06-38

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft	ERP-W	Latitude	Br-to	Dist
City of license	St	FCC file number		AMSL	TPO-W	Longitude	-from	(mi)
B491	APP	ANTILLES WIRELESS CABLE T	F1-F4	49		18-20-31	86.8	81.3
SAINT THOMAS	VI	BMDP-970415PE		453		64-52-27	267.2	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

B491	APP	ANTILLES WIRELESS CABLE T	F1-F4	49		18-19-02	88.1	82.8
SAINT THOMAS	VI	BMDP-970416QB		135		64-51-00	268.5	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

WLX664	CP	UNIV SYSTEM MENDEZ EDUC F	G1-G4	148	141.3V	18-16-54	291.6	.2
AGUAS BUENAS	PR	BPLIF-910415DD		1821	10	66-06-46	111.6	

Ant #1: Andrew HMD12VO; TX: Intl TX Sys 610C; CP Granted 09/10/92 per FCC release #21475 dated 09/25/92

Licensee- APARTADO 21345
Address: RIO PIEDRAS,PR 00928
Engineer: JOHN F. BROWNE (313) 642-6226
Lawyer: DOW,LOHNES & ALBERTSON (202) 857-2500

WLX664	APP	UNIV SYS ANA MENDEZ FOUND	G1-G4			18-16-54	291.6	.2
AGUAS BUENAS	PR	BMPLIF-950914MD				66-06-46	111.6	

PET TO DENY FLD 2/1/98(24180-2/18/98); Accepted per FCC release #* dated 12/12/97

WNC695	CP	UNIV SYS OF ANA G MENDEZ	G1-G4			17-59-33	179.4	19.8
GUAYAMA	PR	BPLIF-951020P8				66-06-26	359.4	

PET TO DENY FLD PER 24169-2/2/98

WNC694	CP	UNIV SYSTEM OF ANA G. MEN	G1-G4	276	355.7H	18-07-34	120.9	20.8
HUMACAO	PR	BPLIF-940317DD		965	20	65-50-19	301.0	

Ant #1: Bogner B8SE; TX: Comwave R-10A-1; CP Granted 02/04/97 per FCC release #* dated 02/07/97

Principal: TODD D GRAY
Licensee- APARTADO 21345
Address: RIO PIEDRAS, PR 00928
Engineer: JOHN F. X. BROWNE & ASSOC (810) 642-6226
Lawyer: DOW, LOHNES & ALBERTSON

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2)
Frequency span: 2150 to 2686 MHZ
Database: 05/27/98

Latitude: 18-16-51
Longitude: 66-06-38

Call	Auth	Licensee name	Chan.	C/R Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license	St	FCC file number						
WNC693	CP	UNIV SYSTEM OF ANA G. MEN	G1-G4	98	590.2H	18-08-59	261.1	58.0
MARICAO	PR	BPLIF-940317DC		3051	20	66-58-59	80.9	

Ant #1: Bogner B16SA; TX: Comwave R-25A-1; PET FOR RECON FILED(23950-3/17/97); CP Granted 02/04/97 per FCC release #* dated 02/07/97
Principal: TODD D GRAY
Licensee- APARTADO 21345
Address: RIO PIEDRAS, PR 00928
Engineer: JOHN F.X. BROWNE & ASSOC (810) 642-6226
Lawyer: DOW, LOHNES & ALBERTSON

NEW	CP	CATHOLIC UNIV. OF PUERTO	G1-G4			18-19-07	272.3	70.2
AGUADILLA	PR	BPLIF-951020ZI				67-10-41	92.0	

CP Granted 05/04/98 per FCC release dated 05/08/98

WNC892	CP	SHEKINAH NETWORK	G1-G4			18-21-34	85.7	74.9
CHARLOTTE AMALIE	VI	BPLIF-951018AG				64-58-22	266.0	

GRD REQUEST FOR SPECIAL TEMP AUTHORITY 3/2/98(24191-3/5/98); CP Granted 02/12/98 per FCC release dated 02/18/98

WNTF632	LIC	FUNDACION SALA, INC	H1	1660	H	18-16-51	.0	.0
AGUAS BUENAS	PR	766947		3268	10	66-06-38	.0	

Ant #1: Andrew HMD12HO; BT.5; RENEWAL APP 50079-R-96 DISMISSED (D858-A); License Granted 11/15/90 per FCC release #1564 dated 12/07/90; Lic. Renew Granted 06/05/96 per FCC release #D-858-A dated 06/12/96
Licensee- 43 CONCORDIA, STREET, STE. 109
Address: PONCE, PR 00731

WNTF632	CP	FUNDACION SALA, INC	H1	128		18-16-51	.0	.0
SAN JUAN	PR	50805-CM-P-95		1736	50	66-06-38	.0	

CP Granted 02/08/96 per FCC release #D-839-A dated 02/14/96
Licensee- 43 CONCORDIA, STREET, STE. 109
Address: PONCE, PR 00731

WNTK992	LIC	CARIBBEAN MMDS PART.	H1-H3	102	629.5H	18-03-37	256.1	62.9
SAN GERMAN	PR	50244-CM-L-94		951	50	67-02-20	75.8	

Ant #1: Andrew HMD12HO-W; TX: Emcee TTS-10HS; EXT. (53515-CM-MP-92) GD, 6-22-93; License Granted 12/27/93 per FCC release #D-742 dated 04/06/94
Licensee- 1500 E RASTELANDRY RD.
Address: LAFAYETTE, LA 70506

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2) Latitude: 18-16-51
Frequency span: 2150 to 2686 MHZ Longitude: 66-06-38
Database: 05/27/98

Call	Auth	Licensee name	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
City of license		St FCC file number						
WNTF457	CP	BGR WIRELESS	H1			18-21-34	85.7	74.9
SAINT THOMAS		VI 774874				64-58-22	266.0	
MOD								
Principal:		CLYDE BRIDGEMAN			(309) 686-2000			
Licensee-		2526 NORTH CALIFORNIA						
Address:		PEORIA,IL 61603						
Engineer:		RICHARD L. VEGA,JR.			(407) 366-0534			
Lawyer:		ABACUS COMMUNICATIONS COMPANY			(202) 462-3680			
B491	APP	ANTILLES WIRELESS CABLE T	H1	482		18-19-56	87.1	75.7
SAINT THOMAS		VI BMDP-970416QF		643		64-57-32	267.5	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
KNSC535	LIC	ANTILLES WIRELESS CABLE T	H1	89		18-21-26	85.9	76.6
SAINT THOMAS		VI BMDL-961119HG		1529		64-56-51	266.2	
BTA- B491; N CMMN CXR; BMDMP961118GT DECREASE ANT HGT(D-910-2/5/97); CP Granted 10/28/96License Granted 12/04/96 per FCC release #D-896 dated 12/04/96								
B491	APP	ANTILLES WIRELESS CABLE T	H1	49		18-22-50	84.7	77.5
SAINT THOMAS		VI BMDP-970416QE		279		64-56-05	265.1	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
Lawyer:					(N) -			
B491	APP	ANTILLES WIRELESS CABLE T	H1	33		18-19-44	87.4	79.1
SAINT THOMAS		VI BMDP-970416QC		741		64-54-24	267.8	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	H1	59		18-20-47	86.5	79.2
SAINT THOMAS		VI BMDP-970415PI		860		64-54-23	266.9	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	H1	98		18-18-45	88.2	79.6
SAINT THOMAS		VI BMDP-970415PL		157		64-53-55	268.6	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	H1	43		18-18-57	88.1	79.8
SAINT THOMAS		VI BMDP-970415PJ		62		64-53-48	268.5	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	H1	49		18-20-31	86.8	81.3
SAINT THOMAS		VI BMDP-970415PK		453		64-52-27	267.2	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-24 dated 04/30/97								

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2)
Frequency span: 2150 to 2686 MHZ
Database: 05/27/98

Latitude: 18-16-51
Longitude: 66-06-38

Call	Auth	Licensee name	St	FCC file number	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
B491	APP	ANTILLES WIRELESS CABLE T			H1	49		18-19-02	88.1	82.8
SAINT THOMAS			VI	BMDP-970416QD		135		64-51-00	268.5	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

Call	Auth	Licensee name	St	FCC file number	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
WNTB423	LIC	FUNDACION SALA, INC			H2	1660	H	18-16-51	.0	.0
AGUAS BUENAS			PR	766949		3268	10	66-06-38	.0	

Ant #1: Andrew HMD12HO; BT.5; RENEWAL 50078-R-96 DISMISSED (D858-A 6/12/96); License Granted 11/15/90 per FCC release #1564 dated 12/07/90; Lic. Renewed Granted 05/31/96 per FCC release #D-857-A dated 06/05/96

Licensee- 43 CONCORDIA, STREET, STE. 109
Address: PONCE, PR 00731

Call	Auth	Licensee name	St	FCC file number	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
WNTB423	CP	FUNDACION SALA, INC			H2	128	629.5H	18-16-51	.0	.0
SAN JUAN			PR	50807-CM-P-95		1736	50	66-06-38	.0	

Ant #1: Andrew HMD12HO; CP Granted 02/08/96 per FCC release #D-839-A dated 02/14/96

Licensee- 43 CONCORDIA, STREET, STE. 109
Address: PONCE, PR 00731

Call	Auth	Licensee name	St	FCC file number	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
B491	APP	ANTILLES WIRELESS CABLE T			H2	482		18-19-56	87.1	75.7
SAINT THOMAS			VI	BMDP-970416QI		643		64-57-32	267.5	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

Call	Auth	Licensee name	St	FCC file number	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
KNSC531	LIC	ANTILLES WIRELESS, L.L.C.			H2	89		18-21-26	85.9	76.6
SAINT THOMAS			VI	BMDL-961119HF		1529		64-56-50	266.2	

BTA - B491; BMDMP961118GV DECREASE ANT HGT(D-910-2/5/97); CP Granted 10/28/96License Granted 12/04/96 per FCC release #D-896 dated 12/04/96

Call	Auth	Licensee name	St	FCC file number	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
B491	APP	ANTILLES WIRELESS CABLE T			H2	49		18-22-50	84.7	77.5
SAINT THOMAS			VI	BMDP-970416QJ		279		64-56-05	265.1	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

Call	Auth	Licensee name	St	FCC file number	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
B491	APP	ANTILLES WIRELESS CABLE T			H2	33		18-19-44	87.4	79.1
SAINT THOMAS			VI	BMDP-970416QG		741		64-54-24	267.8	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97
Lawyer: N (N) -

Call	Auth	Licensee name	St	FCC file number	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
B491	APP	ANTILLES WIRELESS CABLE T			H2	59		18-20-47	86.5	79.2
SAINT THOMAS			VI	BMDP-970415PM		860		64-54-23	266.9	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

Call	Auth	Licensee name	St	FCC file number	Chan.	C/R AG-ft AMSL	Ht ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
B491	APP	ANTILLES WIRELESS CABLE T			H2	98		18-18-45	88.2	79.6
SAINT THOMAS			VI	BMDP-970415PO		157		64-53-55	268.6	

BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2) Latitude: 18-16-51
Frequency span: 2150 to 2686 MHZ Longitude: 66-06-38
Database: 05/27/98

Call	Auth	Licensee name	Chan.	C/R AG-ft	Ht ERP-W	Latitude	Br-to	Dist
City of license	St	FCC file number		AMSL	TPO-W	Longitude	-from	(mi)
B491	APP	ANTILLES WIRELESS CABLE T	H2	43		18-18-57	88.1	79.8
SAINT THOMAS	VI	BMDP-970415PN		62		64-53-48	268.5	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	H2	49		18-20-31	86.8	81.3
SAINT THOMAS	VI	BMDP-970415PP		453		64-52-27	267.2	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	H2	49		18-19-02	88.1	82.8
SAINT THOMAS	VI	BMDP-970416QH		135		64-51-00	268.5	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
WNTB467	CP	FUNDACION SALA, INC	H3	128	629.5H	18-16-51	.0	.0
SAN JUAN	PR	50995-CM-P-95		1736	50	66-06-38	.0	
Ant #1: Andrew HMD12HO; CP Granted 02/08/96 per FCC release #D-839-A dated 02/14/96								
Licensee- 43 CONCORDIA STREET, STE. 109								
Address: PONCE, PR 00731								
WNTB467	LIC	FUNDACION SALA, INC	H3	1660	H	18-16-51	.0	.0
AGUAS BUENAS	PR	766948		3268	10	66-06-38	.0	
Ant #1: Andrew HMD12HO; BT.5; RENEWAL 50081-R-96 DISMISSED (D858-A); License Granted 11/15/90 per FCC release #1564 dated 12/07/90; Lic. Renew Granted 05/31/96 per FCC release #D-857-A dated 06/05/96								
Principal: THOMAS H SCHNITZIUS (713) 222-2170								
Licensee- 43 CONCORDIA STREET, STE 109								
Address: PONCE, PR 00731								
B491	APP	ANTILLES WIRELESS CABLE T	H3	482		18-19-56	87.1	75.7
SAINT THOMAS	VI	BMDP-970416QL		643		64-57-32	267.5	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
KNSC532	LIC	ANTILLES WIRELESS, L.L.C.	H3	89		18-21-26	85.9	76.6
SAINT THOMAS	VI	BMDL961119HF		1529		64-56-50	266.2	
BTA - B491; BMDMP961118GS DECREASE ANT HEIGHT(D-910-2/5/97); CP Granted 10/28/96License Granted 12/01/96 per FCC release #D-896 dated 12/04/96								
B491	APP	ANTILLES WIRELESS CABLE T	H3	49		18-22-50	84.7	77.5
SAINT THOMAS	VI	BMDP-970416QM		279		64-56-05	265.1	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	H3	33		18-19-44	87.4	79.1
SAINT THOMAS	VI	BMDP-970416QN		741		64-54-24	267.8	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								

Wireless Cable Within 100.0 mi

Title: c084-98-0009 sAN JUAN, PR (D2)
Frequency span: 2150 to 2686 MHZ
Database: 05/27/98

Latitude: 18-16-51
Longitude: 66-06-38

Call / City of license	Auth	Licensee name / St FCC file number	C/R Chan.	Ht AG-ft AMSL	ERP-W TPO-W	Latitude Longitude	Br-to -from	Dist (mi)
B491	APP	ANTILLES WIRELESS CABLE T	H3	59		18-20-47	86.5	79.2
SAINT THOMAS		VI BMDP-970415PT		860		64-54-23	266.9	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	H3	98		18-18-45	88.2	79.6
SAINT THOMAS		VI BMDP-970415PS		157		64-53-55	268.6	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	H3	43		18-18-57	88.1	79.8
SAINT THOMAS		VI BMDP-970415PQ		62		64-53-48	268.5	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	H3	49		18-20-31	86.8	81.3
SAINT THOMAS		VI BMDP-970415PR		453		64-52-27	267.2	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								
B491	APP	ANTILLES WIRELESS CABLE T	H3	49		18-19-02	88.1	82.8
SAINT THOMAS		VI BMDP-970416QK		135		64-51-00	268.5	
BTA - 491; N CMMN CXR; Accepted per FCC release #D-924 dated 04/30/97								

>> End of Wireless Cable Within 100.0 mi <<

STOP Normal Termination of Program at End Statement
=--> SITECHECK

FIGURE 2

COCHANNEL ITFS INTERFERENCE ANALYSES

Hardin and Associates, Inc.
Cochannel Interference Study

Station Characteristics:

	Desired	Undesired
Name:	ANA G. MENDEZ FOUNDATION	CATHOLIC ARCHDIOCESE
Service Area:	CAYEY, PR	SAN JUAN, PR
Call Sign:	WNC-864	WLX321
Frequency (MHz):	2501.3 (A1)	2501.3 (A1)
Latitude:	18 : 9 : 16	18 : 16 : 51
Longitude:	66 : 4 : 50	66 : 6 : 38
Polarization:	V	H
Tx Power (dBm):	40.00	47.00
Line Loss (dB):	3.50	2.00
Tx Ant Gain (dBi):	18.00	13.00
Tx Ant Pattern:	B4SD	HMD12HO
Tx Ant Orientation:	0	0
Tx Ant Height ('AGL):	15	128
Tx Site Elevation ('AMSL):	2441	1607

Interference Criteria: 45 dB

Cochannel calculations for the remaining channels in the group will not vary from the results shown below.

4/3 Earth radius Radio Horizons with 30' Rcv Ant

Desired Station:	13.2	MI
Undesired Station	23.7	MI

Distance between stations:	9.0	MI
Bearing desired/undesired:	347.5	Deg

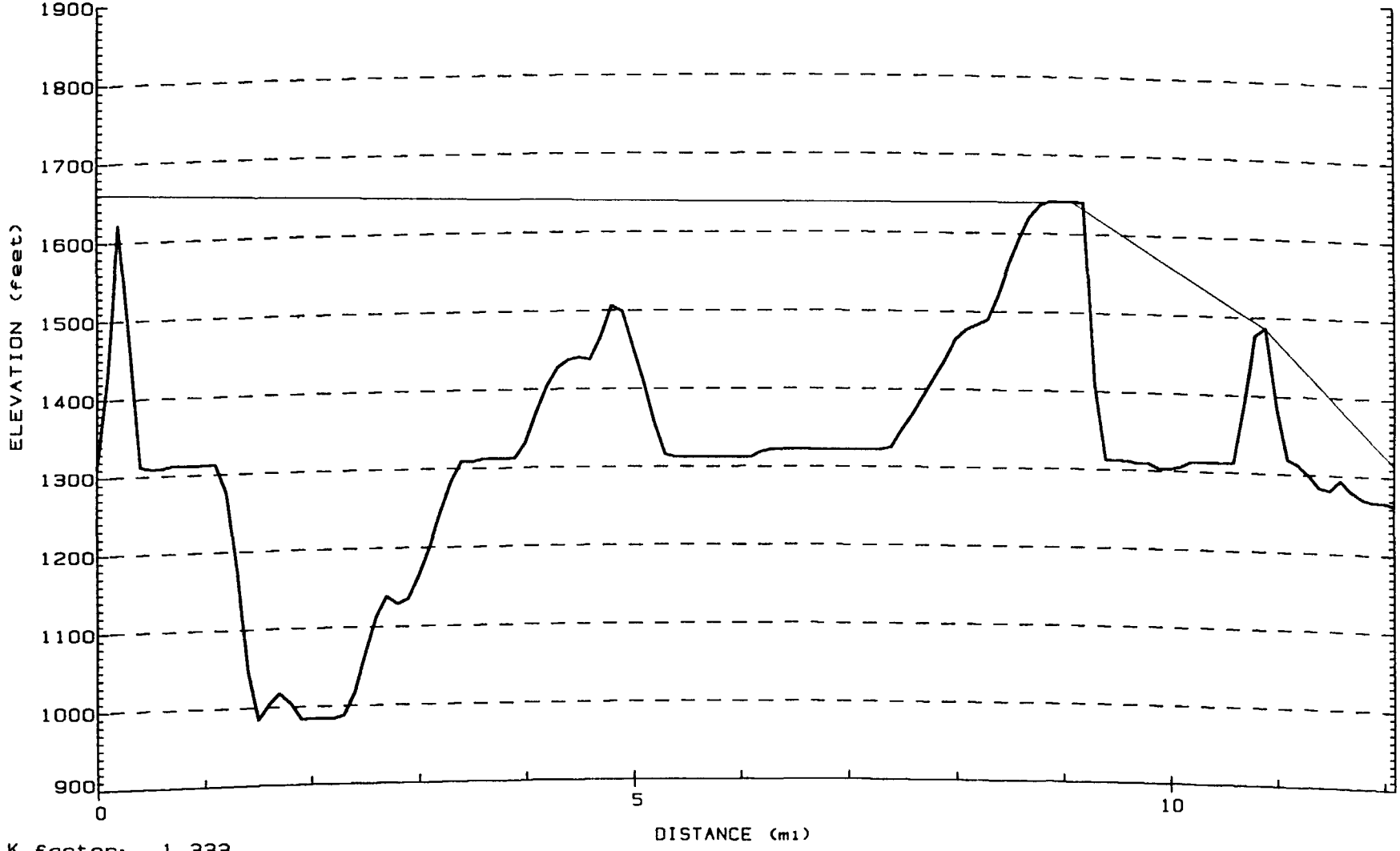
** Indicates receive antenna upgrade

Receive Station	Dist to Desired (Miles)	Bearing to Desired (Deg)	Dist to Undesired (Miles)	Bearing to Undesired (Deg)	Rx Ant Type	Rx Ant Height ('AGL)	Desired Rx Level (dBm)	Undesired Rx Level (dBm)	Rx Ant Discr (dB)	D/U Free Space (dB)	Excess Path Loss (dB) *	D/U F.S. +E.P.L. (dB)
R1	6.3	64.5	12.1	18.1	L2518	50	-78.3	-68.2	36.6	26.4	39.6	66.0
R2	6.2	64.3	12.0	17.5	L2518	50	-78.1	-68.1	36.6	26.6	42.4	69.0
R3	5.9	66.5	11.6	17.1	L2518	50	-77.5	-67.8	39.2	29.6	19.5	49.1
R4	10.0	89.6	11.9	42.4	L2518	50	-81.8	-68.1	37.4	23.8	43.7	67.5
R5	5.8	64.0	11.7	16.1	L2518	50	-77.8	-68.0	37.4	27.6	44.8	72.4
R6	6.2	64.1	12.0	17.5	L2518	50	-78.1	-68.1	36.6	26.6	39.6	66.2
R7	12.1	81.2	14.6	43.4	L2518	50	-83.4	-69.8	36.3	22.7	10.5	33.2
R7 UPGRADE	12.1	81.2	14.6	43.4	HP10-25D	50	-83.4	-69.8	54.8	41.1	10.5	51.6
R8	11.1	83.1	13.5	42.0	L2518	50	-82.7	-69.2	33.7	20.2	27.9	48.1
R9	11.9	85.7	13.8	45.7	L2518	50	-83.3	-69.3	34.3	20.4	27.8	48.2
R10	12.5	85.7	14.3	47.4	L2518	50	-83.7	-69.6	35.7	21.6	20.7	42.3
R11	14.5	89.5	15.3	54.7	L2518	50	-85.0	-70.3	38.3	23.6	0.0	23.6
R11 UPGRADE	14.5	89.5	15.3	54.7	HP10-25D	50	-85.0	-70.3	54.6	39.9	0.0	39.9
R12	7.4	94.8	9.7	33.4	L2518	50	-79.1	-66.3	35.3	22.6	0.0	22.6
R12 UPGRADE	7.4	94.8	9.7	33.4	HP10-25D	50	-79.1	-66.3	55.6	42.8	0.0	42.8
R13	14.9	98.3	14.3	62.6	L2518	50	-85.2	-69.7	37.7	22.2	64.0	86.2
R14	15.0	98.5	14.4	63.2	L2518	50	-85.3	-69.7	37.7	22.1	49.6	71.7
R15	15.0	99.5	14.3	64.0	L2518	50	-85.3	-69.6	37.7	22.0	44.9	66.9
R16	5.5	100.3	8.5	23.8	L2518	50	-76.9	-65.1	32.0	20.2	16.2	36.4
R16 UPGRADE	5.5	100.3	8.5	23.8	P6F25D	50	-76.9	-65.1	44.0	32.2	16.2	48.4
R17	14.4	106.3	12.8	68.4	L2518	50	-85.8	-68.7	36.3	19.2	14.3	33.5
R17 UPGRADE	14.4	106.3	12.8	68.4	P10F25D	50	-85.8	-68.7	48.0	30.9	14.3	45.2
R18	5.6	107.2	7.8	25.5	L2518	50	-77.6	-64.5	39.6	26.4	30.6	57.0
R19	5.4	107.4	7.8	24.4	L2518	50	-77.4	-64.4	39.2	26.2	23.3	49.5
R20	7.1	108.8	8.0	36.6	L2518	50	-79.9	-64.6	32.0	16.7	60.0	76.7

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 198.08 degs.

Frequency: 2597.3 MHz
Path Length: 12.1 mi
Total Path Loss: 166.1 dB
Excess Path Loss: 39.6 dB

Site: CAYEY, PR
N 18 6 54 W 66 10 3
Ant. Elev. (AMSL): 1315.0 ft
Path azimuth: 18.06 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R1

Radio Path Profile

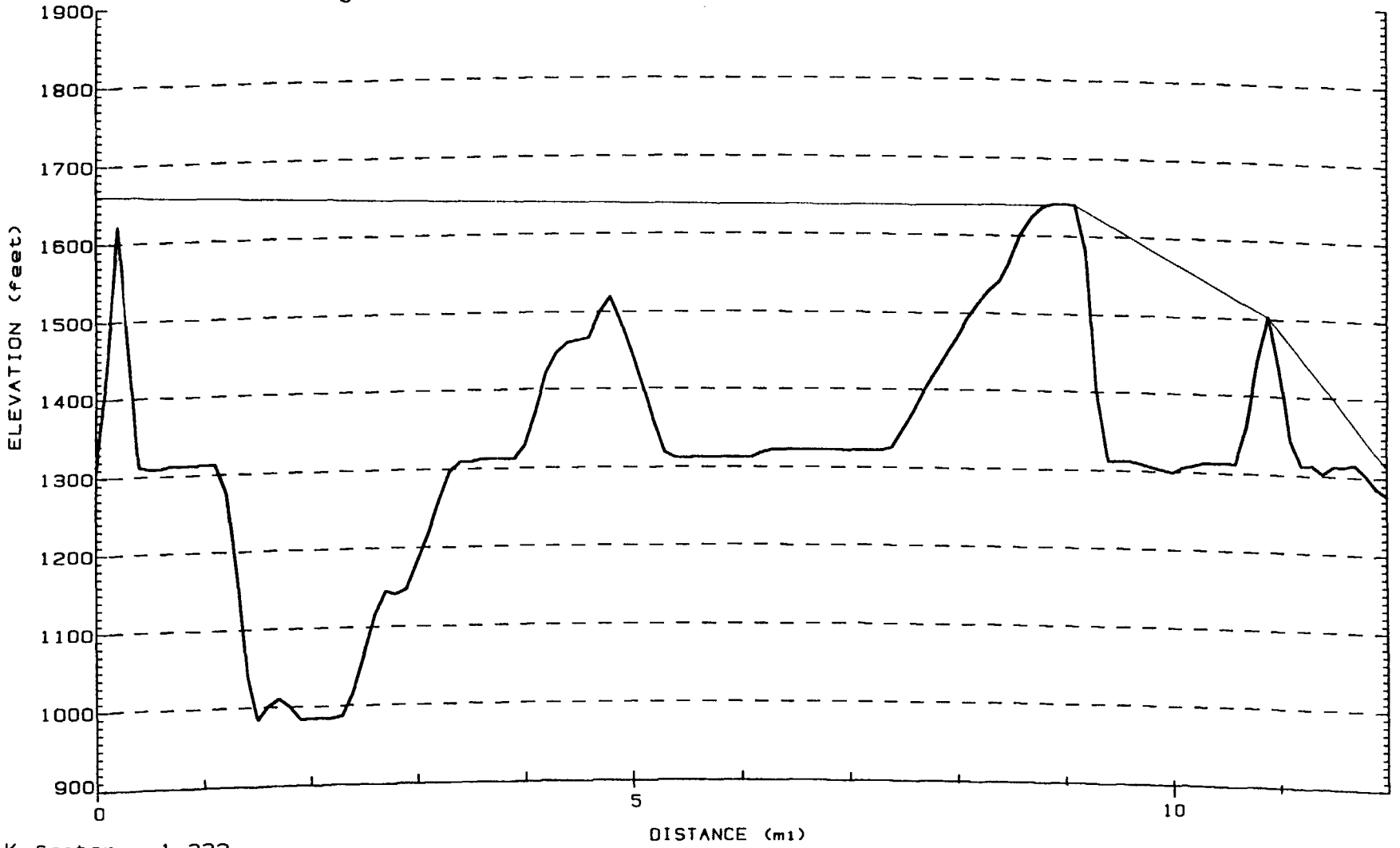
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R1

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 197.72 degs.

Frequency: 2597.3 MHz
Path Length: 12.0 mi
Total Path Loss: 168.9 dB
Excess Path Loss: 42.4 dB

Site: CAYEY, PR
N 18 6 56 W 66 9 58
Ant. Elev. (AMSL): 1315.0 ft
Path azimuth: 17.70 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R2

Radio Path Profile

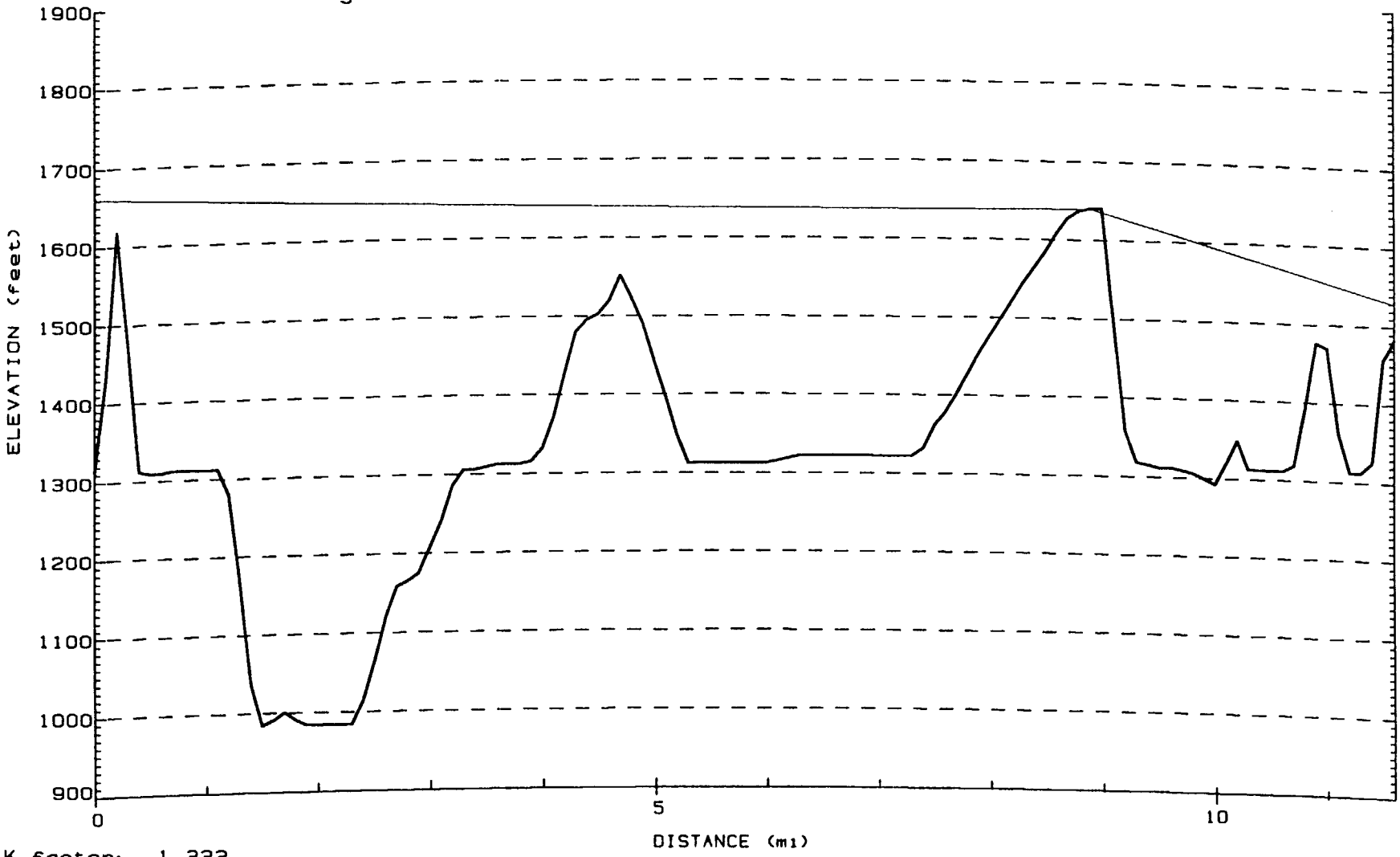
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R2

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 197.12 degs.

Frequency: 2597.3 MHz
Path Length: 11.6 mi
Total Path Loss: 145.7 dB
Excess Path Loss: 19.5 dB

Site: CAYEY, PR
N 18 7 14 W 66 9 45
Ant. Elev. (AMSL): 1530.1 ft
Path azimuth: 17.10 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R3

Radio Path Profile

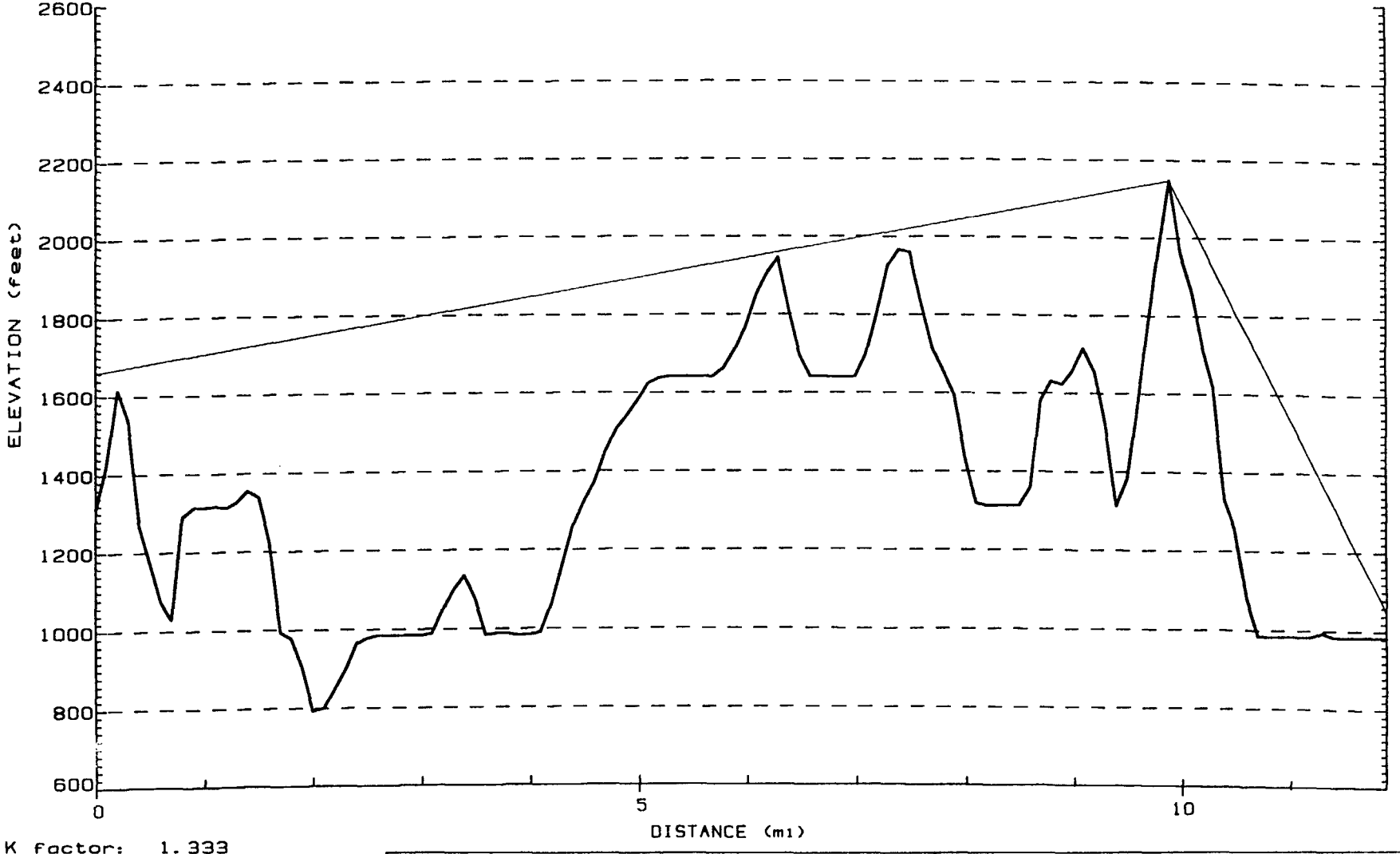
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R3

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 222.40 degs.

Frequency: 2597.3 MHz
Path Length: 11.9 mi
Total Path Loss: 170.1 dB
Excess Path Loss: 43.7 dB

Site: CAYEY, PR
N 18 9 13 W 66 13 58
Ant. Elev. (AMSL): 1050.0 ft
Path azimuth: 42.36 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R4

Radio Path Profile

SAN JUAN TO CAYEY, PR

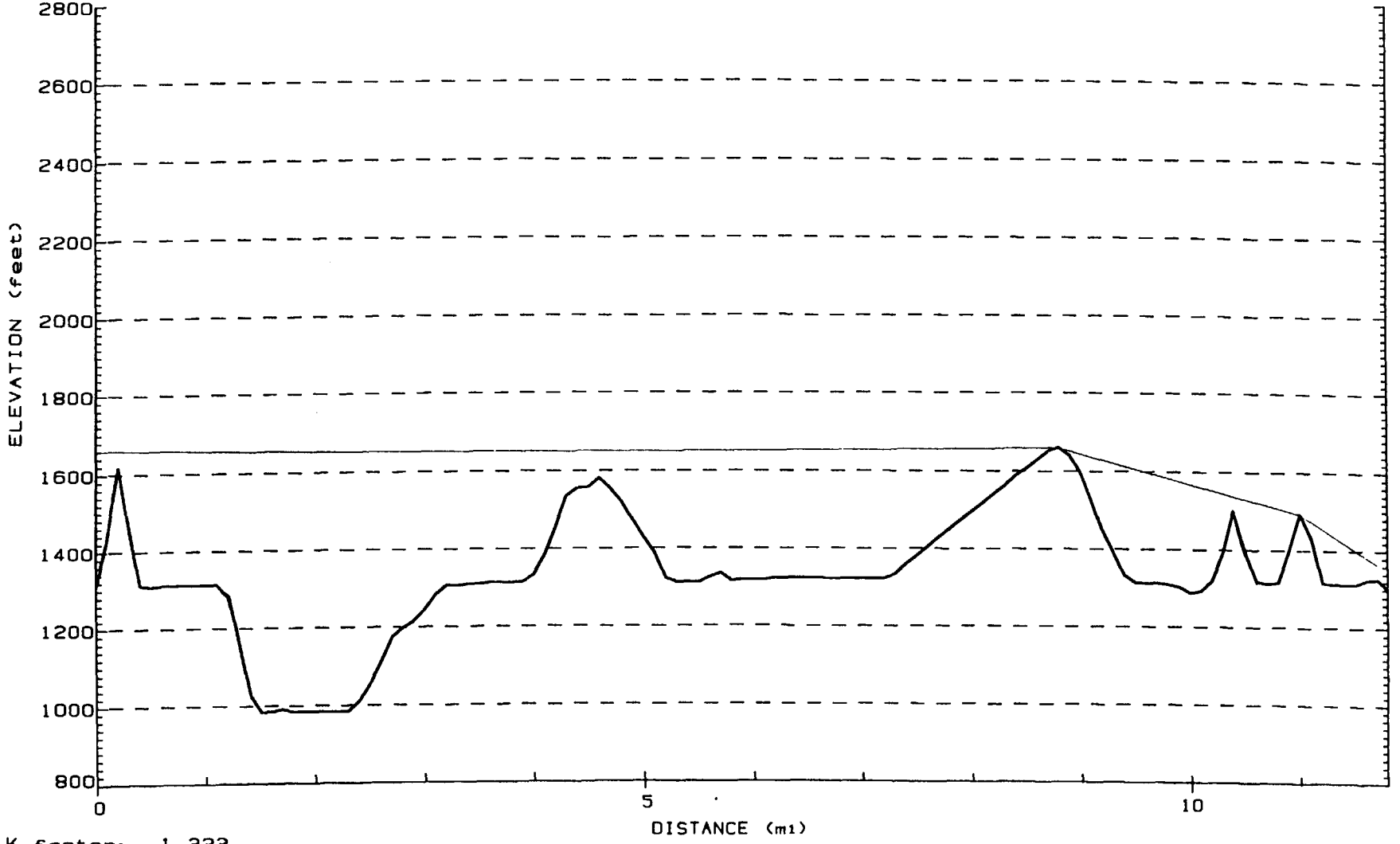
FEBRUARY 4, 1998

R4

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 196.14 degs.

Frequency: 2597.3 MHz
Path Length: 11.7 mi
Total Path Loss: 171.0 dB
Excess Path Loss: 44.8 dB

Site: CAYEY, PR
N 18 7 3 W 66 9 37
Ant. Elev. (AMSL): 1366.0 ft
Path azimuth: 16.12 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R5

Radio Path Profile

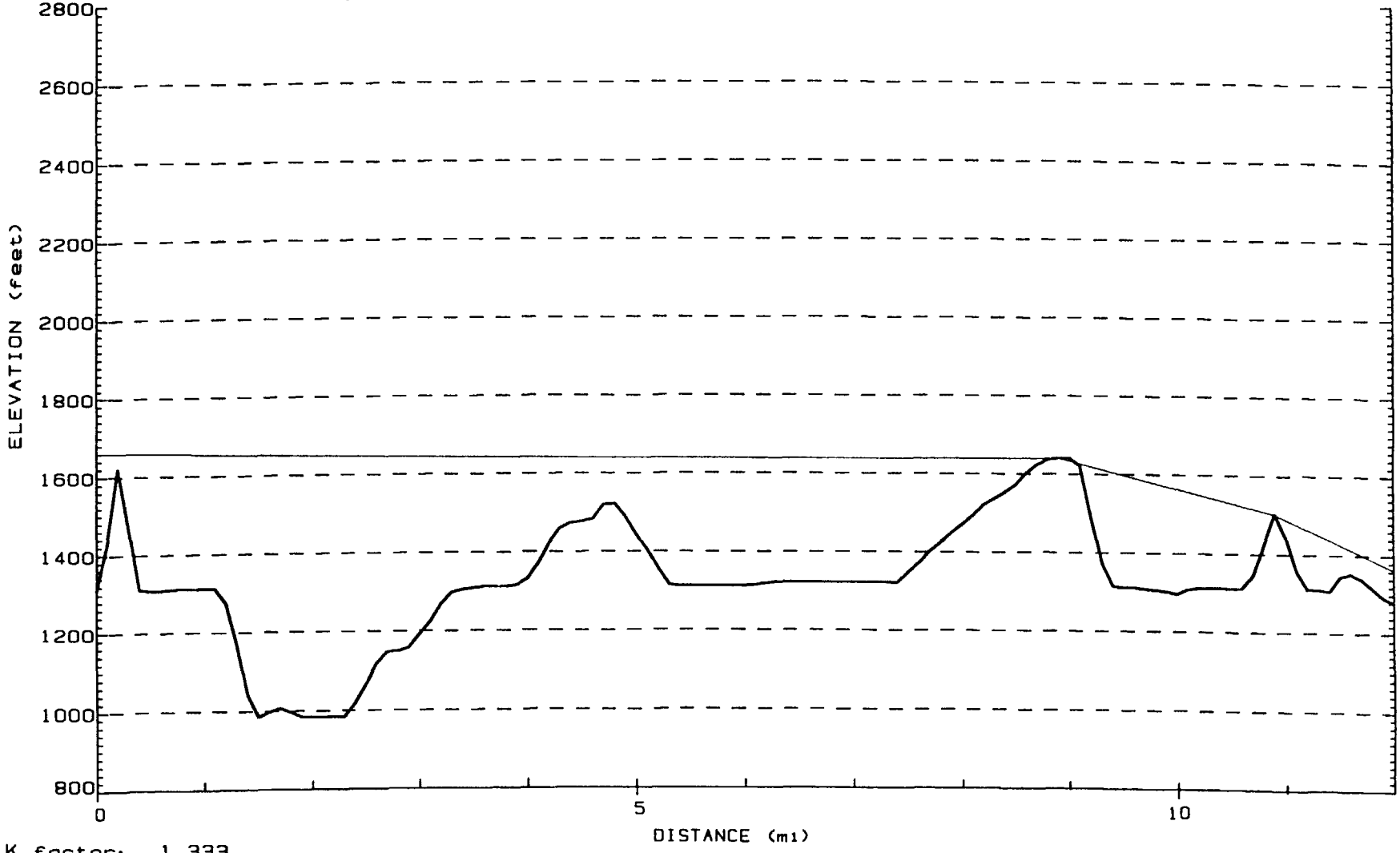
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R5

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 197.52 degs.

Frequency: 2597.3 MHz
Path Length: 12.0 mi
Total Path Loss: 166.1 dB
Excess Path Loss: 39.6 dB

Site: CAYEY, PR
N 18 6 55 W 66 9 56
Ant. Elev. (AMSL): 1366.0 ft
Path azimuth: 17.51 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R6

Radio Path Profile

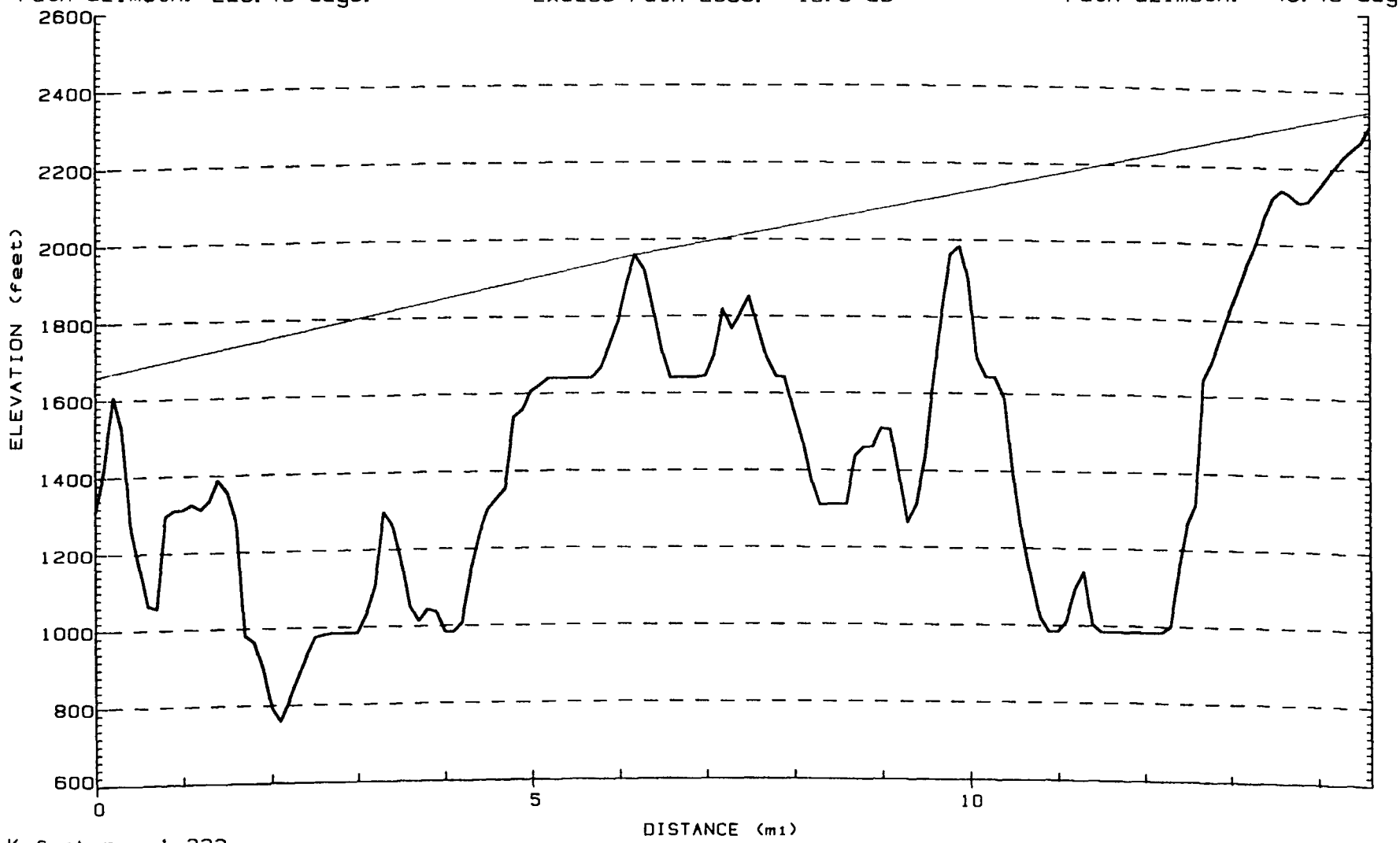
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R6

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 223.45 degs.

Frequency: 2597.3 MHz
Path Length: 14.6 mi
Total Path Loss: 138.7 dB
Excess Path Loss: 10.5 dB

Site: CAYEY, PR
N 18 7 40 W 66 15 47
Ant. Elev. (AMSL): 2350.1 ft
Path azimuth: 43.40 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R7

Radio Path Profile

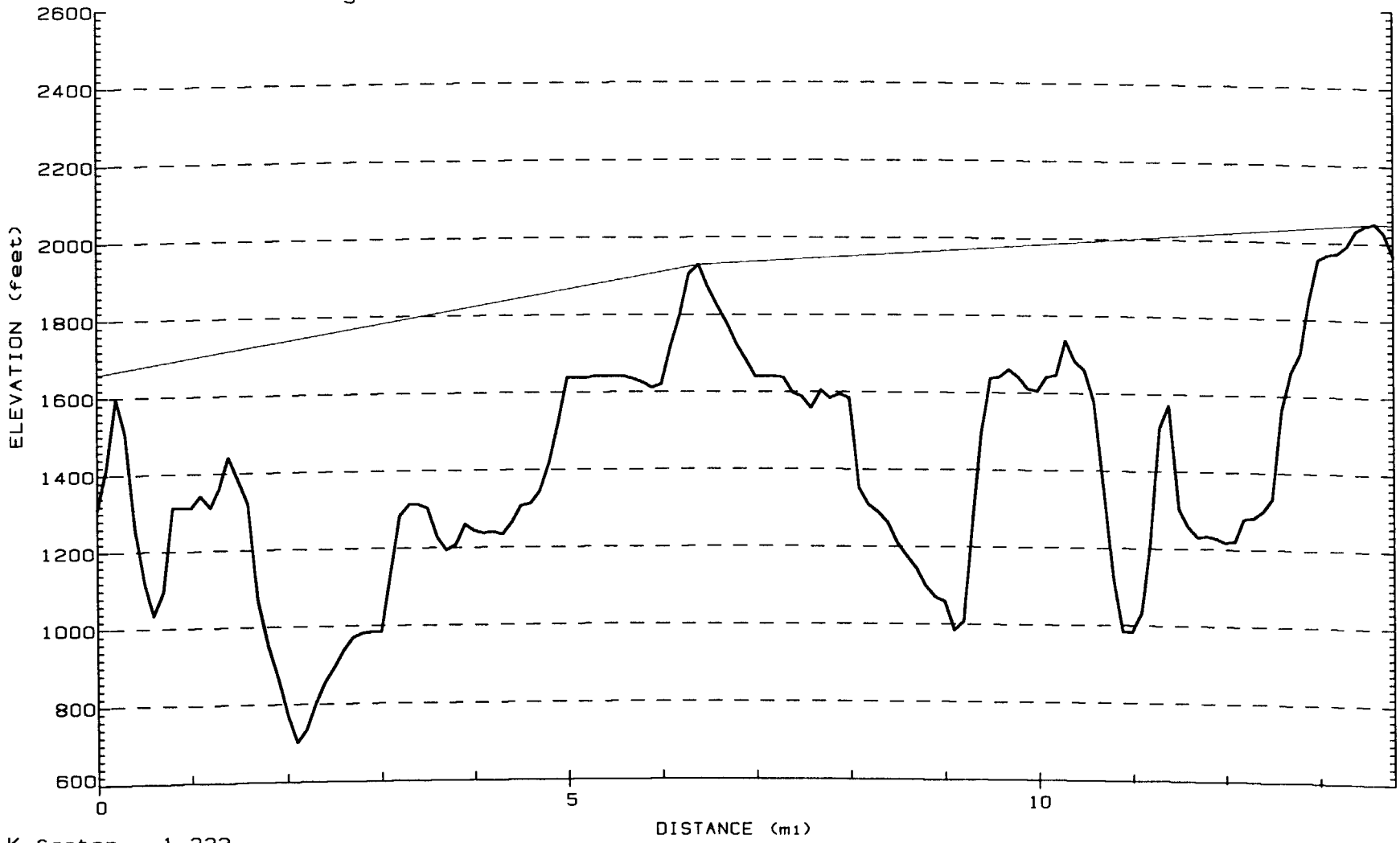
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R7

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.2 ft
Path azimuth: 225.75 degs.

Frequency: 2597.3 MHz
Path Length: 13.8 mi
Total Path Loss: 155.5 dB
Excess Path Loss: 27.9 dB

Site: CAYEY, PR
N 18 8 30 W 66 15 39
Ant. Elev. (AMSL): 2050.1 ft
Path azimuth: 45.70 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R8

Radio Path Profile

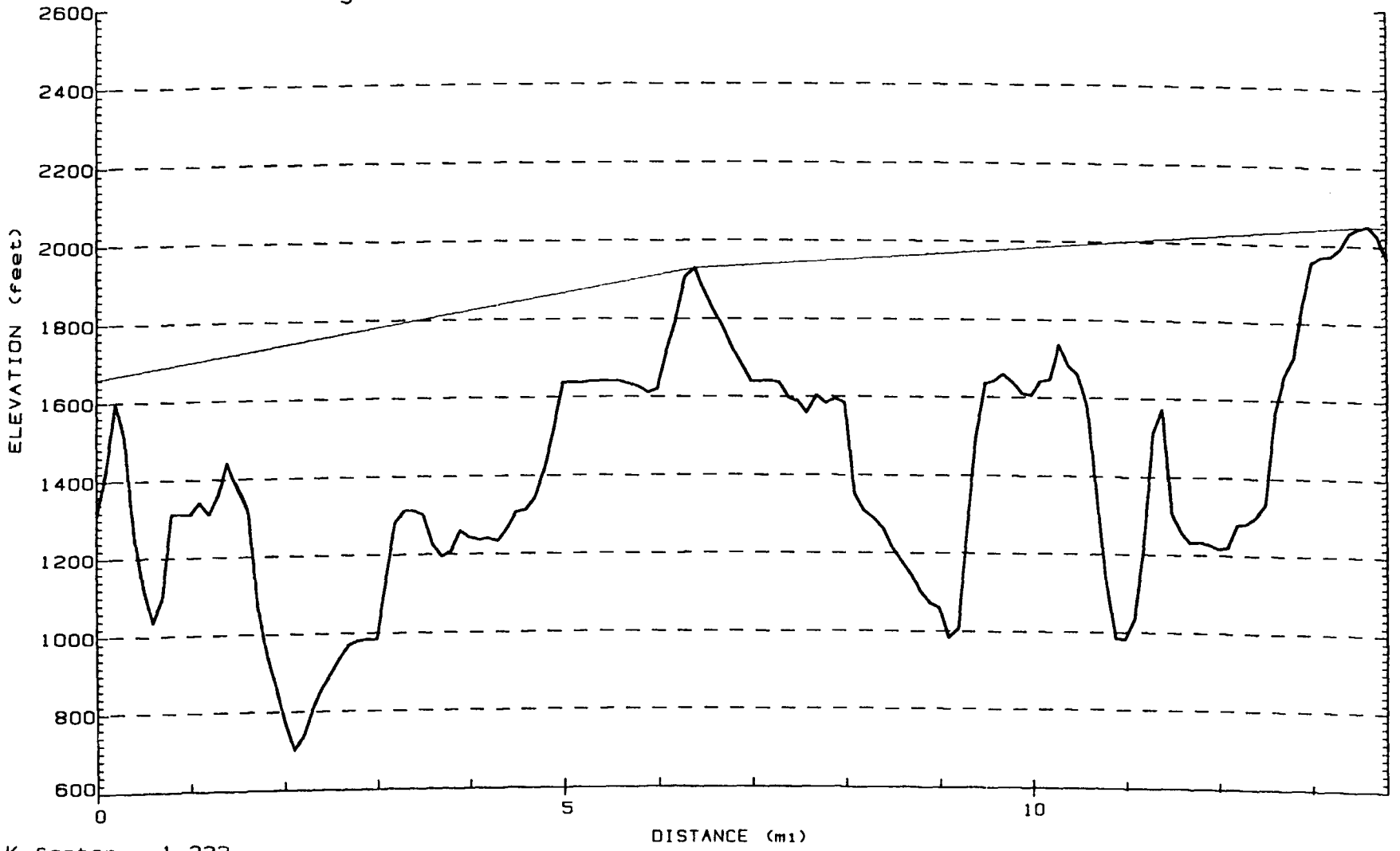
SAN JAUN TO CAYEY, PR

FEBRUARY 4, 1998 R8

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 225.75 degs.

Frequency: 2597.3 MHz
Path Length: 13.8 mi
Total Path Loss: 155.4 dB
Excess Path Loss: 27.8 dB

Site: CAYEY, PR
N 18 8 30 W 66 15 39
Ant. Elev. (AMSL): 2050.1 ft
Path azimuth: 45.70 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R9

Radio Path Profile

SAN JUAN TO CAYEY, PR

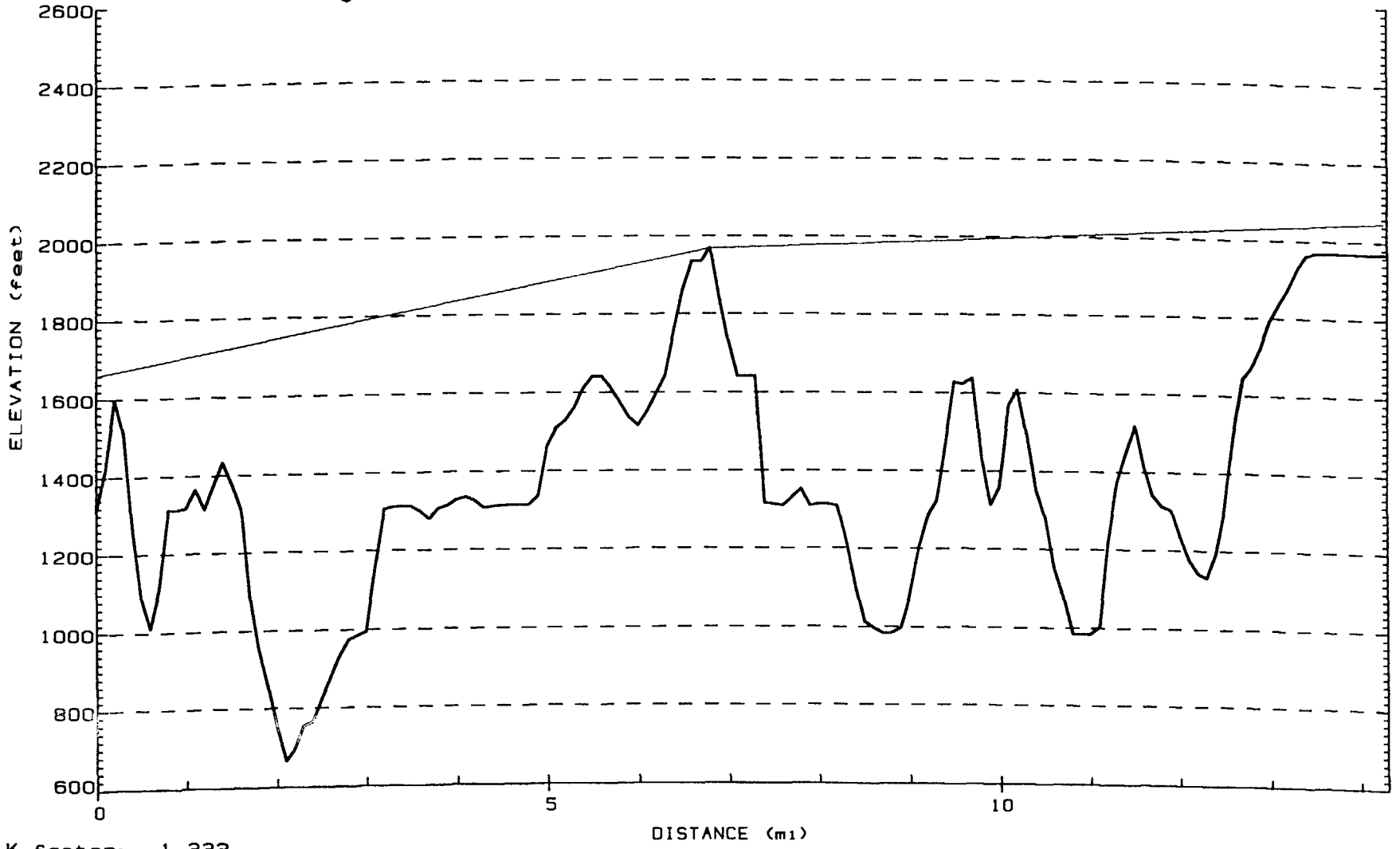
FEBRUARY 4, 1998

R9

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 227.43 degs.

Frequency: 2597.3 MHz
Path Length: 14.3 mi
Total Path Loss: 148.6 dB
Excess Path Loss: 20.7 dB

Site: CAYEY, PR
N 18 8 28 W 66 16 14
Ant. Elev. (AMSL): 2050.1 ft
Path azimuth: 47.38 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R10

Radio Path Profile

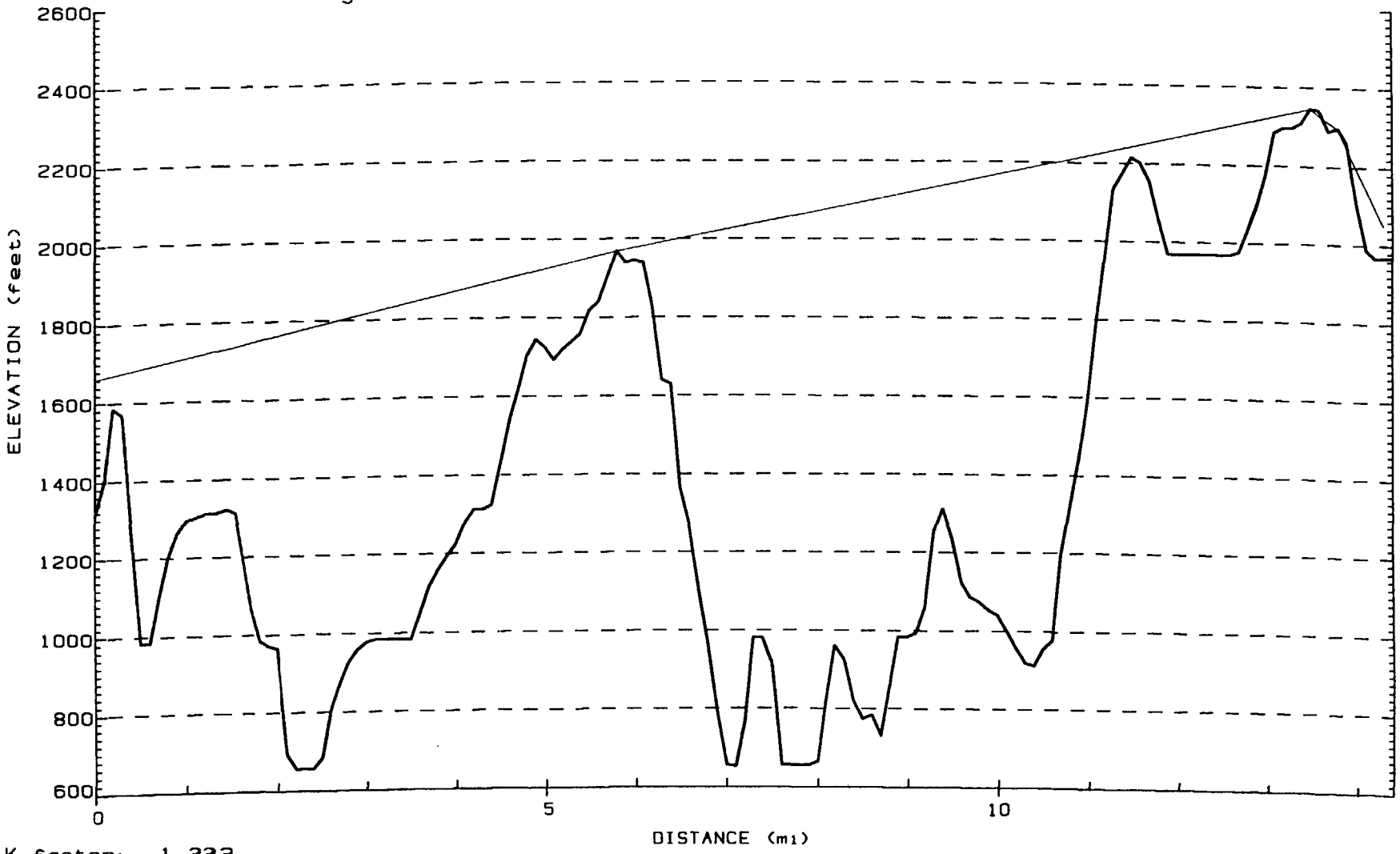
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R10

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 242.67 degs.

Frequency: 2597.3 MHz
Path Length: 14.3 mi
Total Path Loss: 192.0 dB
Excess Path Loss: 64.0 dB

Site: CAYEY, PR
N 18 11 8 W 66 18 16
Ant. Elev. (AMSL): 2050.1 ft
Path azimuth: 62.61 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R13

Radio Path Profile

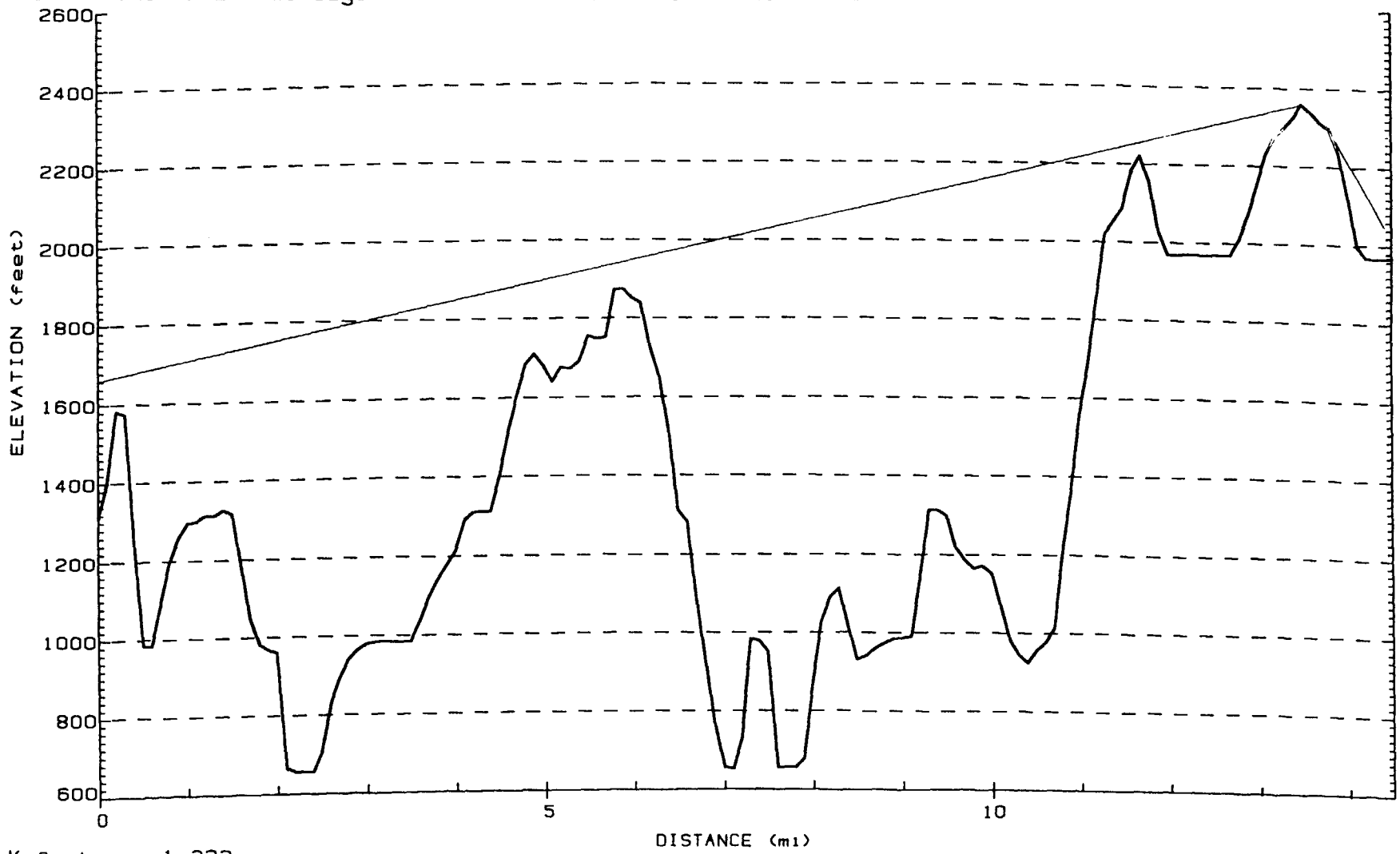
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R13

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 243.21 degs.

Frequency: 2597.3 MHz
Path Length: 14.4 mi
Total Path Loss: 177.7 dB
Excess Path Loss: 49.6 dB

Site: CAYEY, PR
N 18 11 12 W 66 18 24
Ant. Elev. (AMSL): 2050.1 ft
Path azimuth: 63.15 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R14

Radio Path Profile

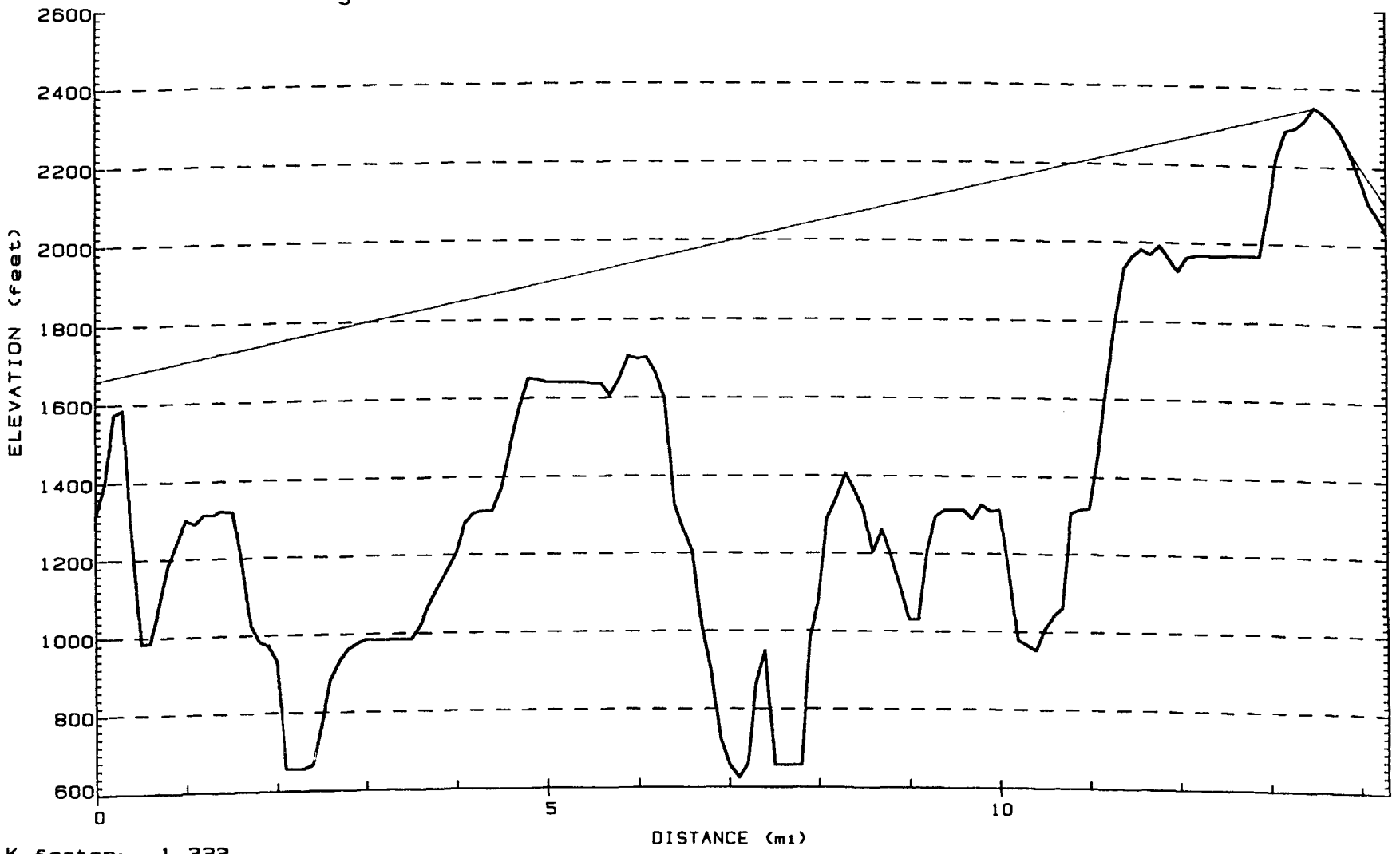
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R14

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 244.08 degs.

Frequency: 2597.3 MHz
Path Length: 14.3 mi
Total Path Loss: 172.9 dB
Excess Path Loss: 44.9 dB

Site: CAYEY, PR
N 18 11 26 W 66 18 21
Ant. Elev. (AMSL): 2104.1 ft
Path azimuth: 64.01 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R15

Radio Path Profile

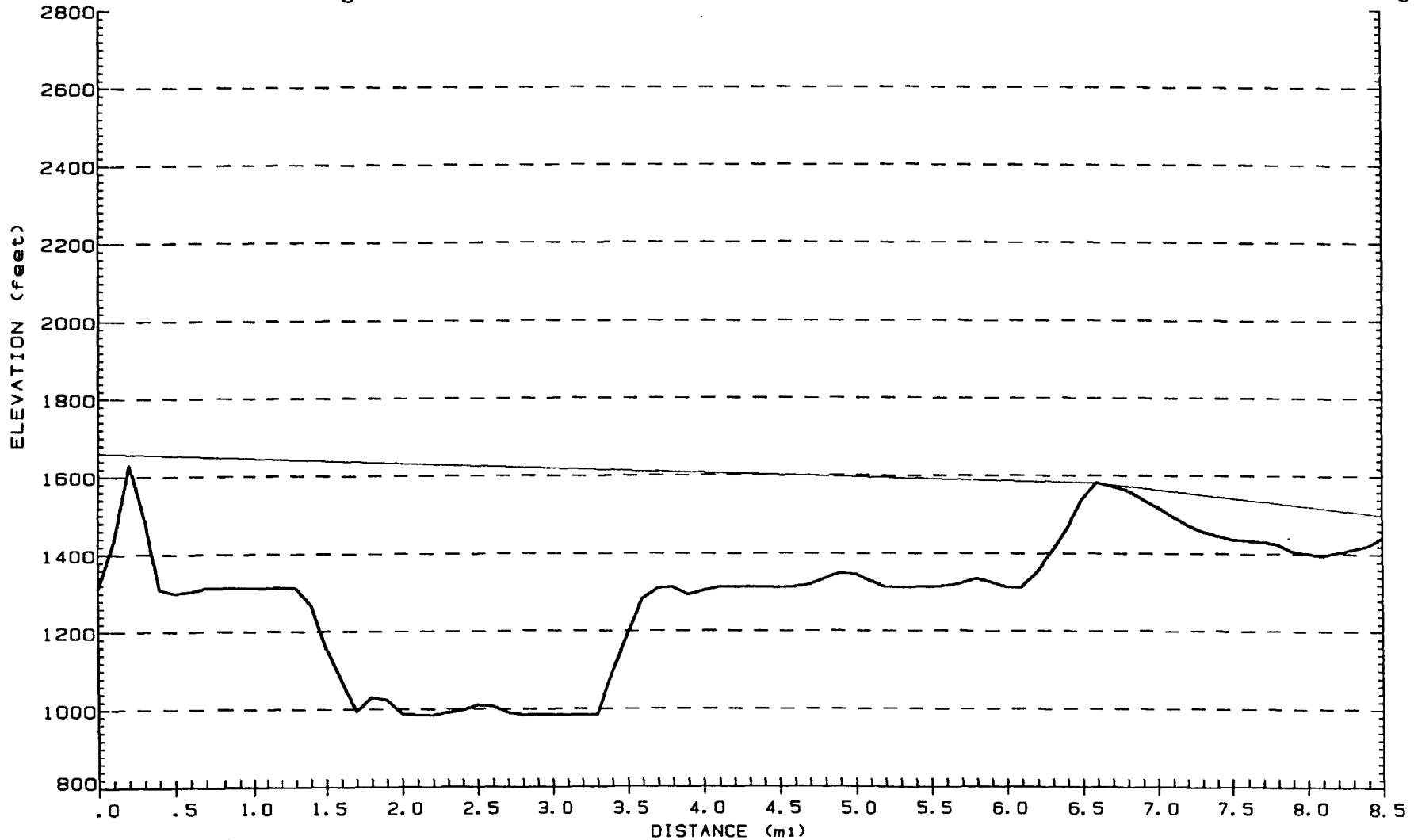
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R15

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 203.85 degs.

Frequency: 2597.3 MHz
Path Length: 8.5 mi
Total Path Loss: 139.7 dB
Excess Path Loss: 16.2 dB

Site: CAYEY, PR
N 18 10 7 W 66 9 46
Ant. Elev. (AMSL): 1500.1 ft
Path azimuth: 23.84 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R16

Radio Path Profile

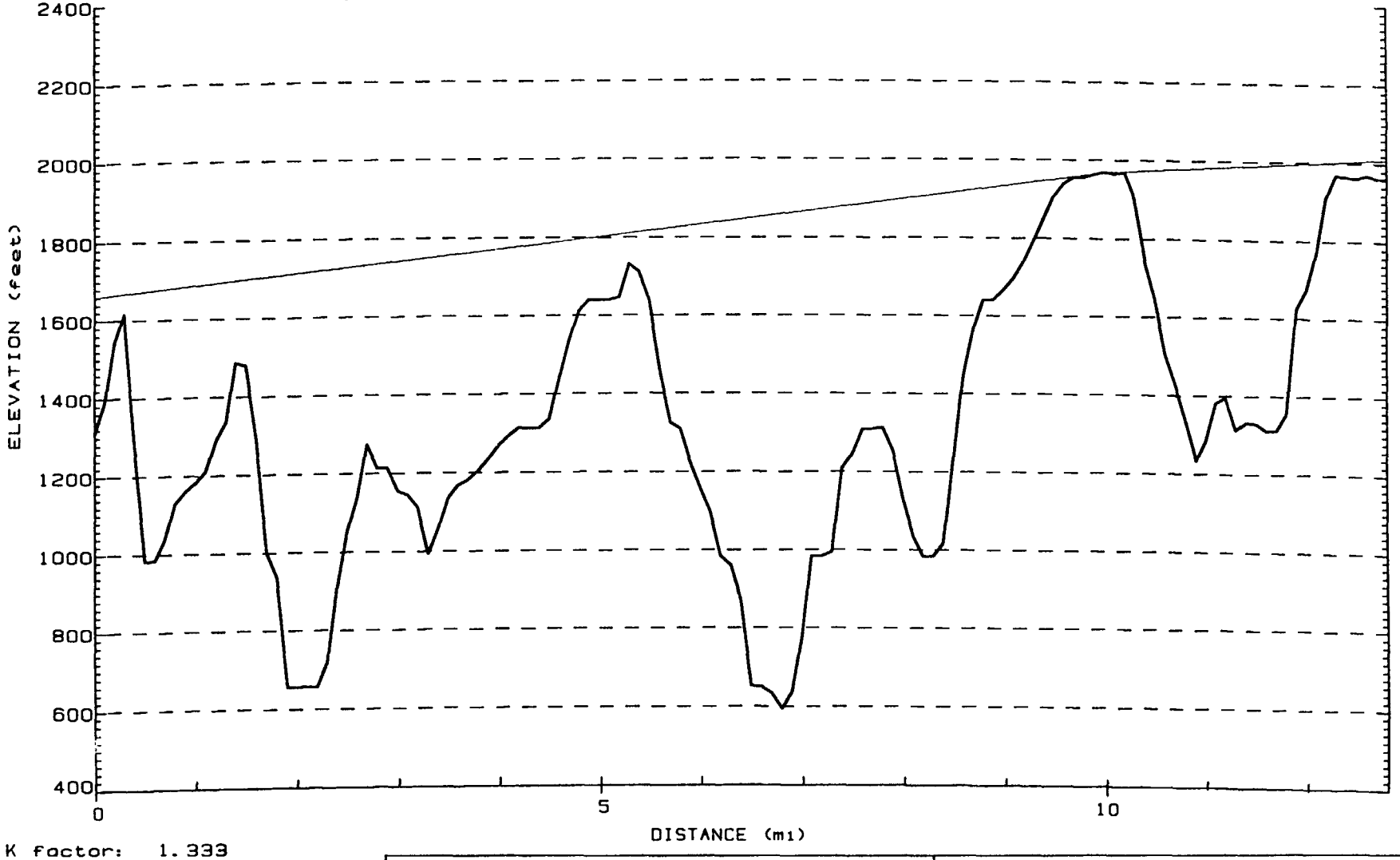
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R16

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 248.49 degs.

Frequency: 2597.3 MHz
Path Length: 12.8 mi
Total Path Loss: 141.3 dB
Excess Path Loss: 14.3 dB

Site: CAYEY, PR
N 18 12 47 W 66 17 29
Ant. Elev. (AMSL): 2010.0 ft
Path azimuth: 68.43 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R17

Radio Path Profile

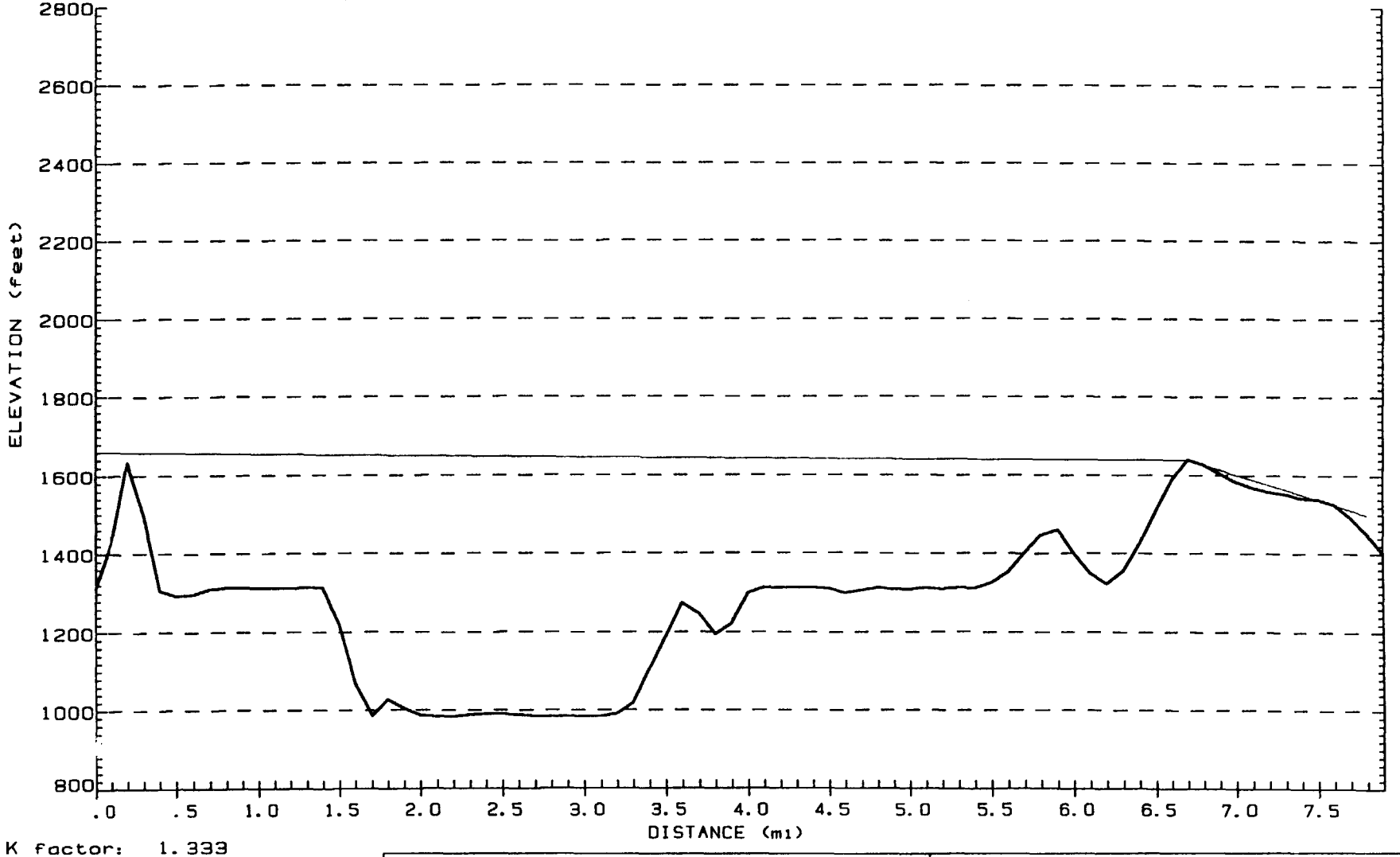
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R17

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 205.47 degs.

Frequency: 2597.3 MHz
Path Length: 7.8 mi
Total Path Loss: 153.3 dB
Excess Path Loss: 30.6 dB

Site: CAYEY, PR
N 18 10 42 W 66 9 43
Ant. Elev. (AMSL): 1500.1 ft
Path azimuth: 25.46 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R18

Radio Path Profile

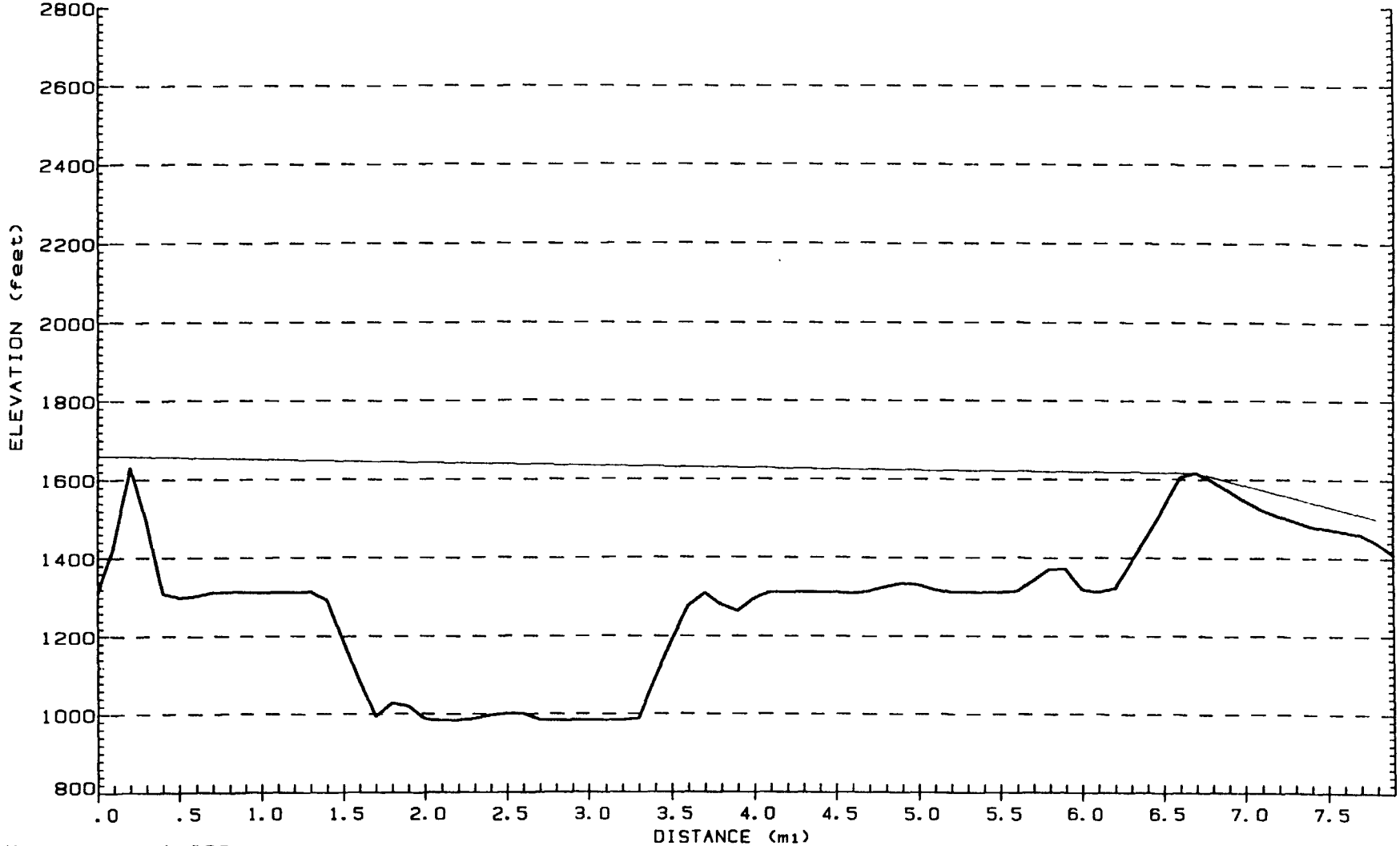
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R18

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 204.44 degs.

Frequency: 2597.3 MHz
Path Length: 7.8 mi
Total Path Loss: 146.0 dB
Excess Path Loss: 23.3 dB

Site: CAYEY, PR
N 18 10 41 W 66 9 35
Ant. Elev. (AMSL): 1500.1 ft
Path azimuth: 24.43 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R19

Radio Path Profile

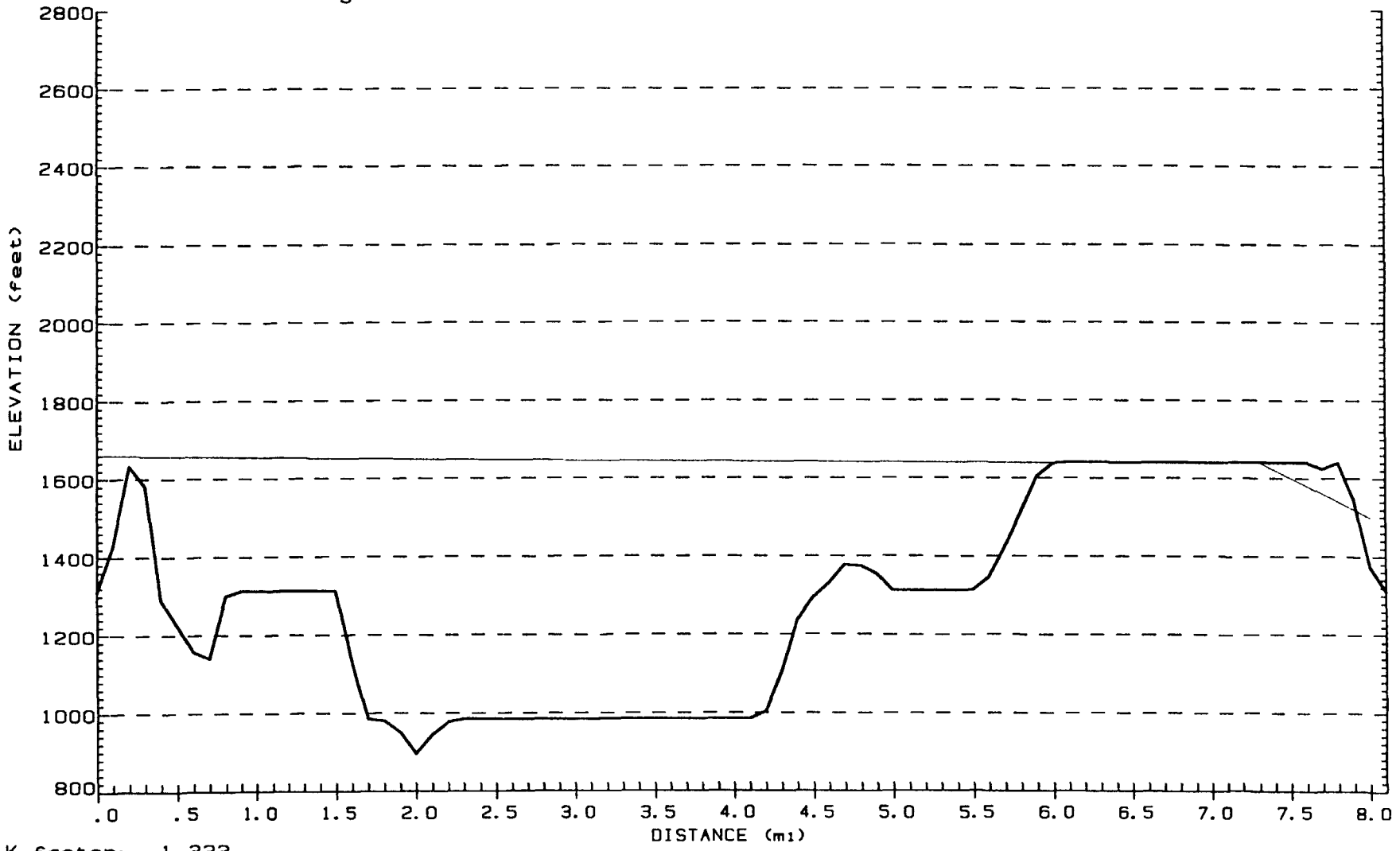
SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R19

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1661.1 ft
Path azimuth: 216.62 degs.

Frequency: 2597.3 MHz
Path Length: 8.0 mi
Total Path Loss: 182.9 dB
Excess Path Loss: 60.0 dB

Site: CAYEY, PR
N 18 11 16 W 66 11 0
Ant. Elev. (AMSL): 1500.1 ft
Path azimuth: 36.59 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

R20

Radio Path Profile

SAN JUAN TO CAYEY, PR

FEBRUARY 4, 1998 R20

Hardin and Associates, Inc.
Cochannel Interference Study

Station Characteristics:

	Desired	Undesired
Name:	CATHOLIC DIOCESE OF CAG.	CATHOLIC ARCHDIOCESE
Service Area:	GURABO, PR	SAN JUAN, PR
Call Sign:	951020WN	WLX-321
Frequency (MHz):	2501.3 (A1)	2501.3 (A1)
Latitude:	18 : 16 : 54	18 : 16 : 51
Longitude:	65 : 56 : 42	66 : 6 : 38
Polarization:	V	H
Tx Power (dBm):	40.00	47.00
Line Loss (dB):	3.50	2.00
Tx Ant Gain (dBi):	13.00	13.00
Tx Ant Pattern:	HMD12VO	HMD12HO
Tx Ant Orientation:	0	0
Tx Ant Height ('AGL):	193	128
Tx Site Elevation ('AMSL):	1519	1607

Interference Criteria: 45 dB

Cochannel calculations for the remaining channels in the group will not vary from the results shown below.

4/3 Earth radius Radio Horizons with 30' Rcv Ant
Desired Station: 27.4 MI
Undesired Station 23.7 MI

Distance between stations: 10.9 MI
Bearing desired/undesired: 269.7 Deg

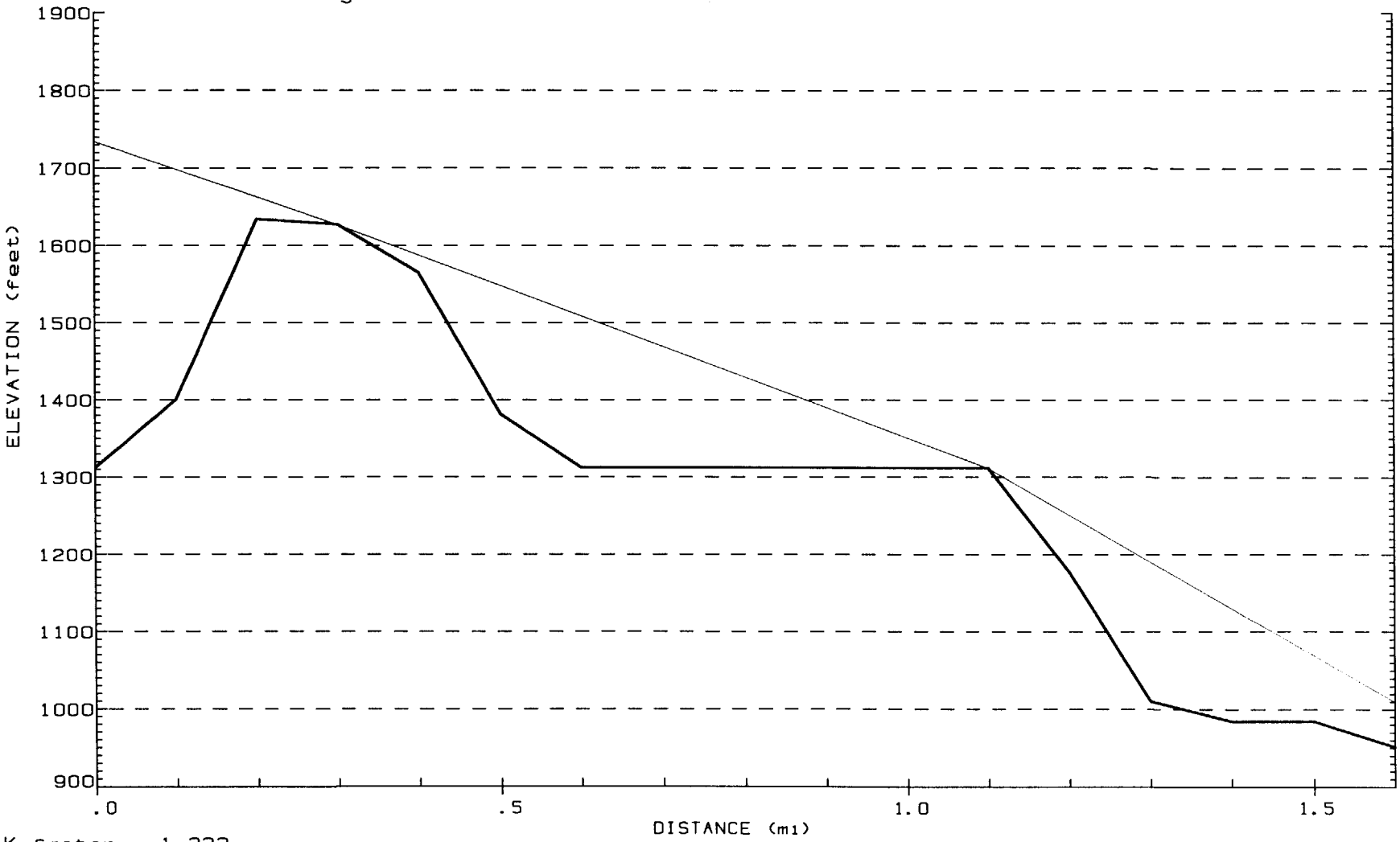
** Indicates receive antenna upgrade

Receive Station	Dist to Desired (Miles)	Bearing to Desired (Deg)	Dist to Undesired (Miles)	Bearing to Undesired (Deg)	Rx Ant Type	Rx Ant Height ('AGL)	Desired Rx Level (dBm)	Undesired Rx Level (dBm)	Rx Ant Discr (dB)	D/U Free Space (dB)	xcess Path Loss (dB) *	D/U F.S. +E.P.L. (dB)
R1	10.7	81.3	1.6	350.0	FCC	50	-75.7	-50.5	36.0	10.9	36.0	46.9
R2	23.2	62.4	14.4	42.3	FCC	50	-82.4	-69.7	36.0	23.4	6.3	29.7
R2 UPGRADE	23.2	62.4	14.4	42.3	HP10-25D	50	-82.4	-69.7	54.1	41.5	6.3	47.8
R3	24.5	74.3	14.3	62.8	FCC	50	-82.9	-69.7	25.0	11.8	52.9	64.7
R4	6.2	54.4	6.8	301.6	FCC	50	-71.0	-63.2	40.0	32.3	17.3	49.6
R5	7.1	60.6	5.8	306.5	FCC	50	-72.1	-61.8	40.3	29.9	7.8	37.7
R5 UPGRADE	7.1	60.6	5.8	306.5	P10F25D	50	-72.1	-61.8	51.0	40.7	7.8	48.5
R6	6.5	58.1	6.3	302.3	FCC	50	-71.3	-62.6	40.4	31.6	24.9	56.5
R7	6.7	60.0	6.0	302.9	FCC	50	-71.6	-62.2	40.6	31.2	26.5	57.7
R8	6.6	66.3	5.4	298.7	FCC	50	-71.5	-61.3	42.1	31.8	32.3	64.1
R9	6.4	72.2	5.2	291.4	FCC	50	-71.1	-60.8	44.0	33.7	23.2	56.9
R10	7.9	89.4	2.9	270.4	FCC	50	-73.0	-55.9	45.0	27.9	0.0	27.9
R10 UPGRADE	7.9	89.4	2.9	270.4	MHP-25A12	50	-73.0	-55.9	70.0	52.9	0.0	52.9
R11	11.5	326.0	19.8	298.8	FCC	50	-76.3	-72.5	36.0	32.2	35.2	67.4
R12	67.5	88.4	56.7	88.2	FCC	50	-91.7	-81.6	20.0	10.0	106.3	116.3
R13	12.2	317.1	21.1	294.9	FCC	50	-76.8	-73.0	36.0	32.3	18.7	51.0
R14	5.0	348.9	12.8	292.3	FCC	50	-69.1	-68.7	36.0	35.6	37.1	72.7
R15	66.9	84.4	56.0	83.4	FCC	50	-91.6	-81.5	20.0	10.0	107.0	117.0

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 170.03 degs.

Frequency: 2597.3 MHz
Path Length: 1.6 mi
Total Path Loss: 145.0 dB
Excess Path Loss: 36.0 dB

Site: AGUAS BUENAS, PR
N 18 15 30 W 66 6 23
Ant. Elev. (AMSL): 1010.0 ft
Path azimuth: 350.03 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R1

Radio Path Profile

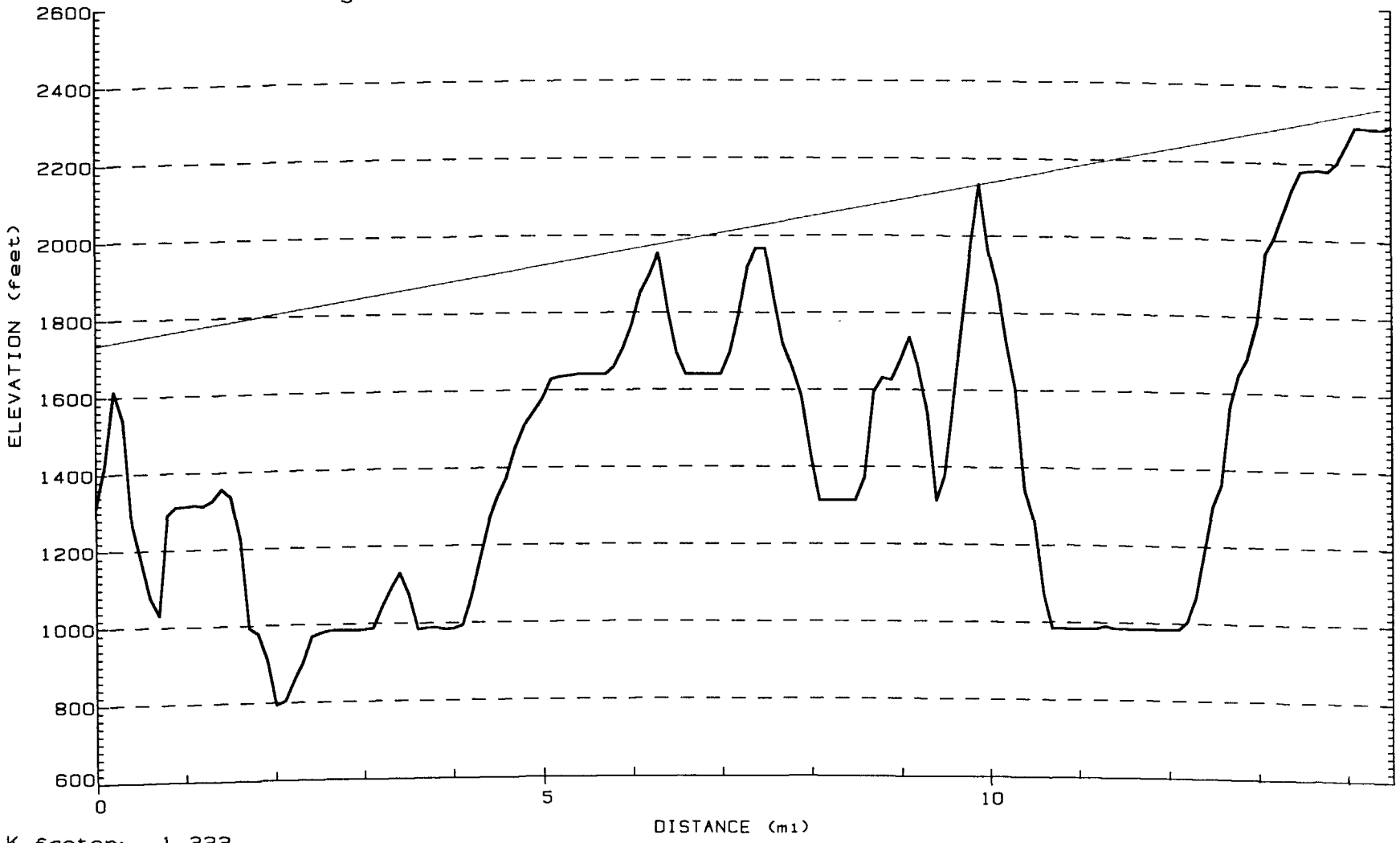
SAN JUAN TO AGUAS BUENAS

JUNE 1, 1998 R1

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 222.35 degs.

Frequency: 2597.3 MHz
Path Length: 14.4 mi
Total Path Loss: 134.3 dB
Excess Path Loss: 6.3 dB

Site: ALBONITA, PR
N 18 7 35 W 66 15 31
Ant. Elev. (AMSL): 2343.9 ft
Path azimuth: 42.30 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R2

Radio Path Profile

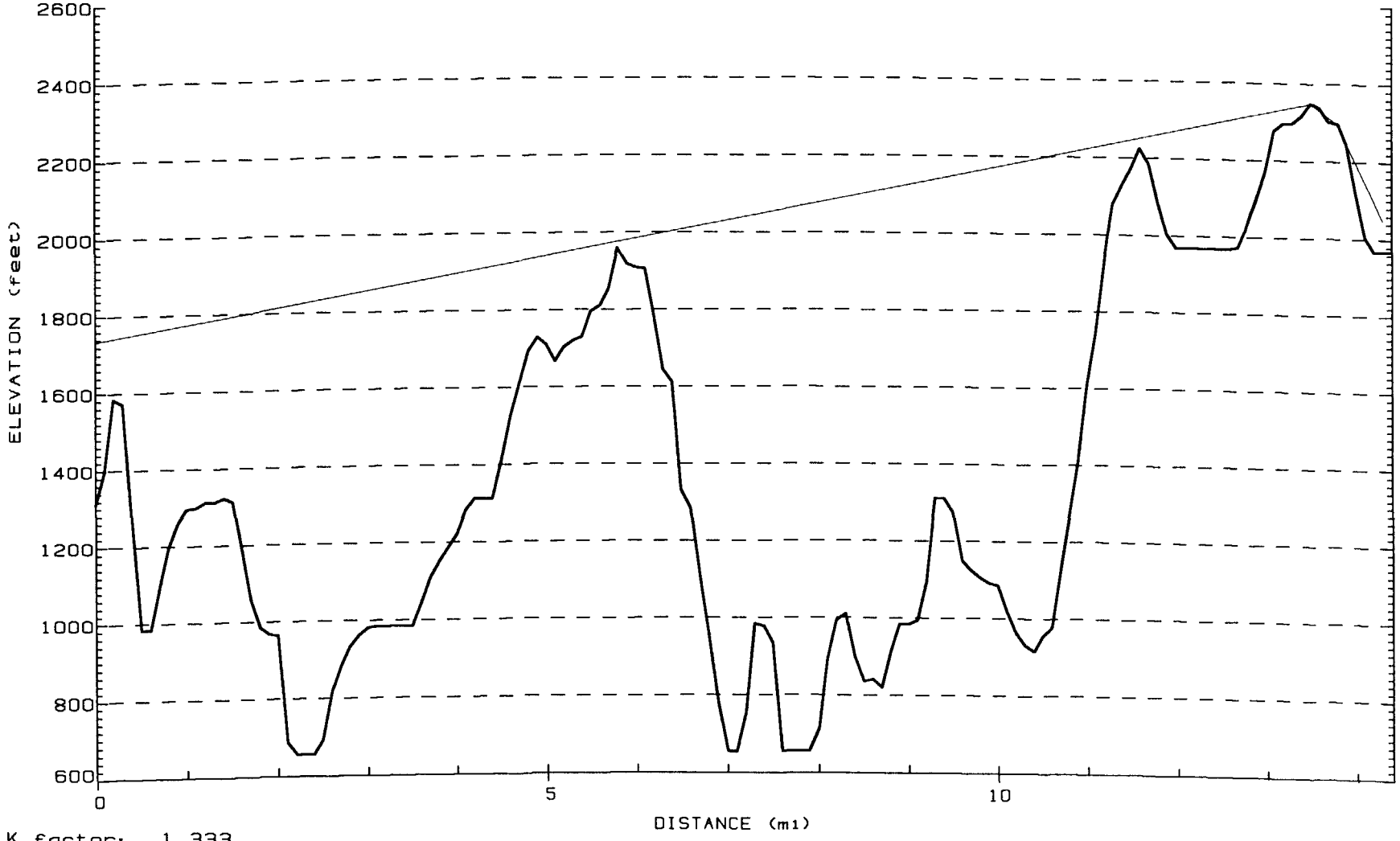
SAN JUAN TO ALBONITO, PR

JUNE 1, 1998 R2

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 242.88 degs.

Frequency: 2597.3 MHz
Path Length: 14.3 mi
Total Path Loss: 180.9 dB
Excess Path Loss: 52.9 dB

Site: BARRANQUITAS, PR
N 18 11 10 W 66 18 18
Ant. Elev. (AMSL): 2050.1 ft
Path azimuth: 62.82 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R3

Radio Path Profile

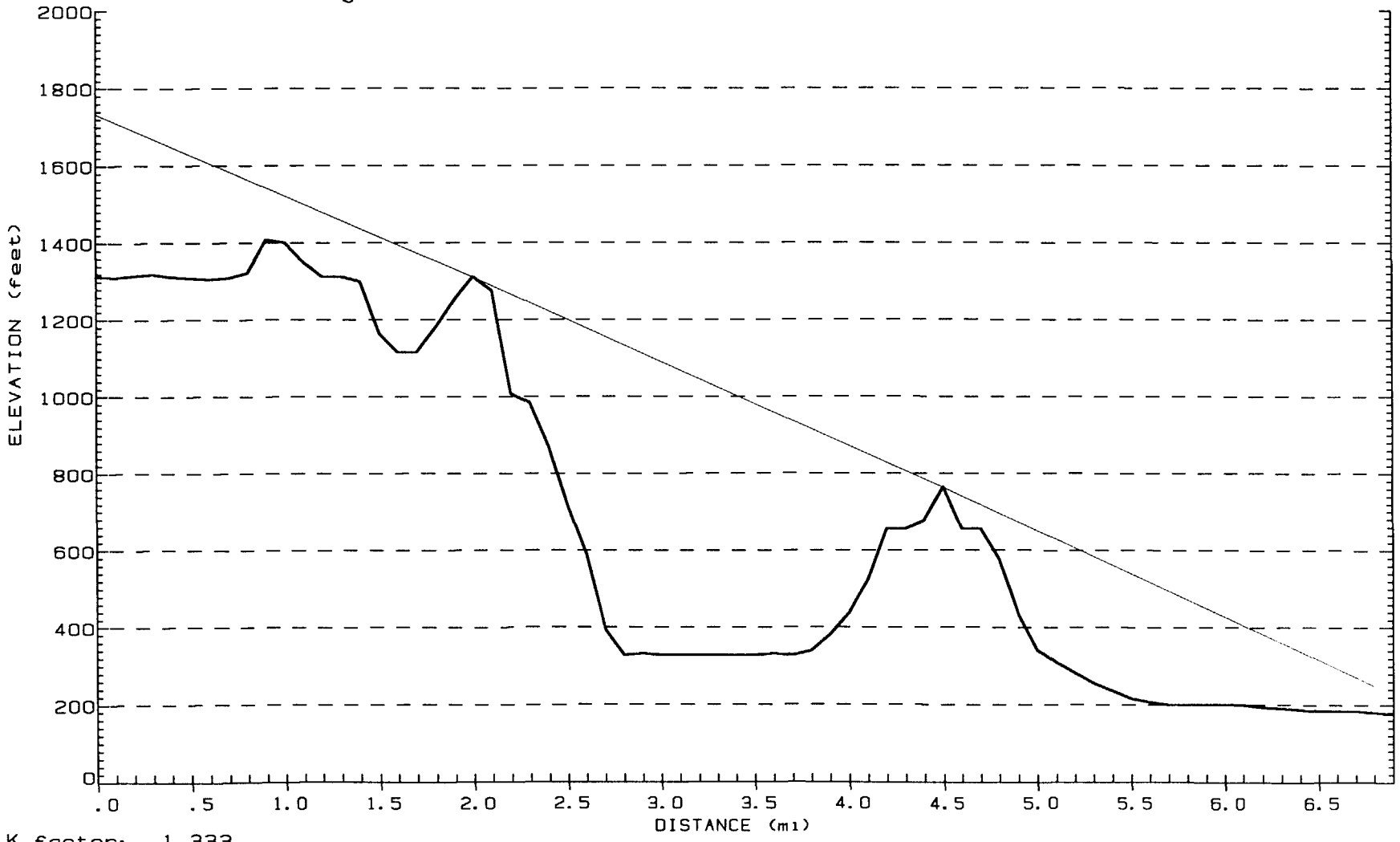
SAN JUAN TO BARRANQUITAS, PR

JUNE 1, 1998 R3

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 121.62 degs.

Frequency: 2597.3 MHz
Path Length: 6.8 mi
Total Path Loss: 138.8 dB
Excess Path Loss: 17.3 dB

Site: CAGUAS, PR
N 18 13 45 W 66 1 20
Ant. Elev. (AMSL): 250.0 ft
Path azimuth: 301.64 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R4

Radio Path Profile

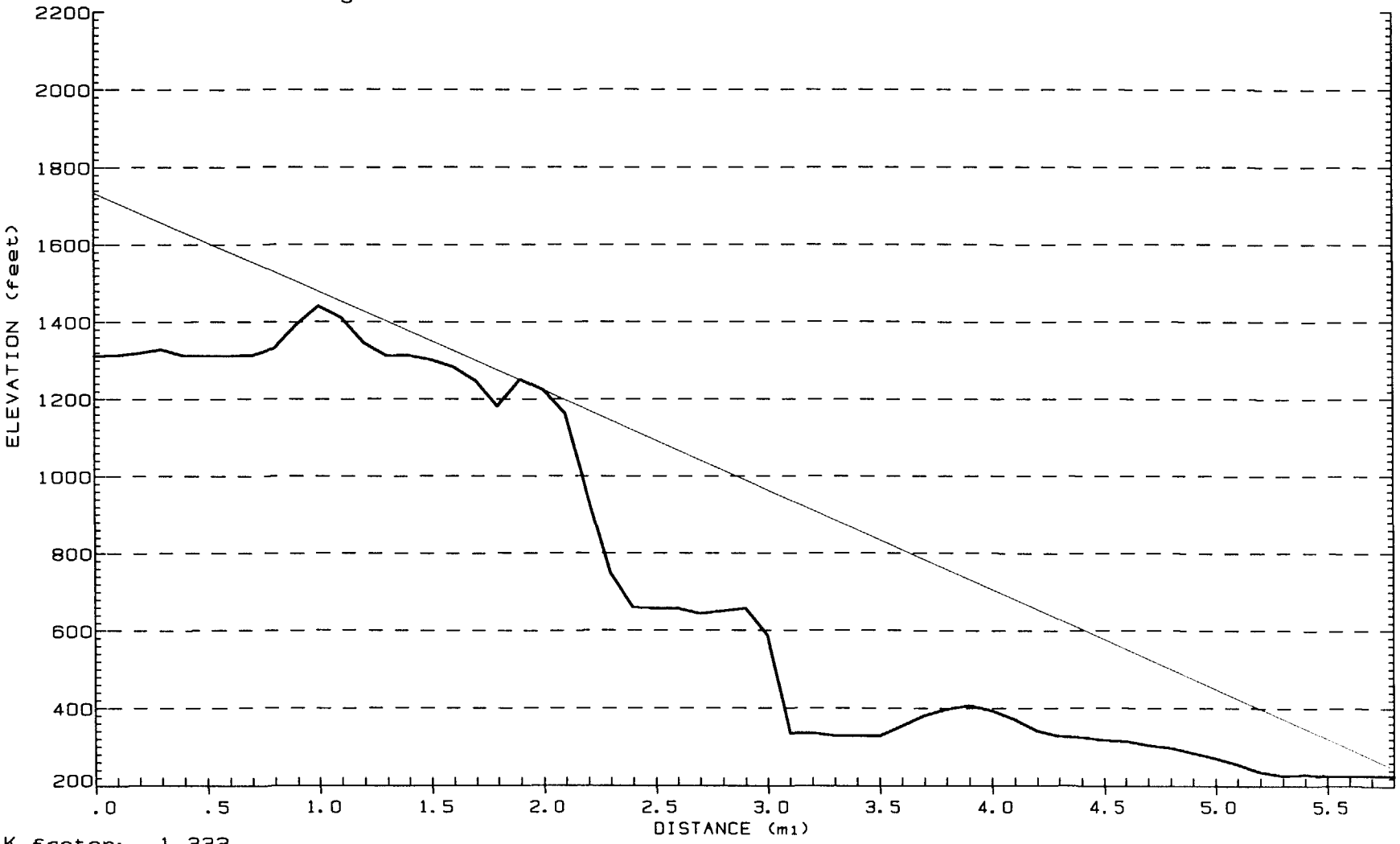
SAN JUAN TO CAGUAS, PR

JUNE 1, 1998 R4

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 126.46 degs.

Frequency: 2597.3 MHz
Path Length: 5.8 mi
Total Path Loss: 127.9 dB
Excess Path Loss: 7.8 dB

Site: CAGUAS, PR
N 18 13 52 W 66 2 23
Ant. Elev. (AMSL): 250.0 ft
Path azimuth: 306.48 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R5

Radio Path Profile

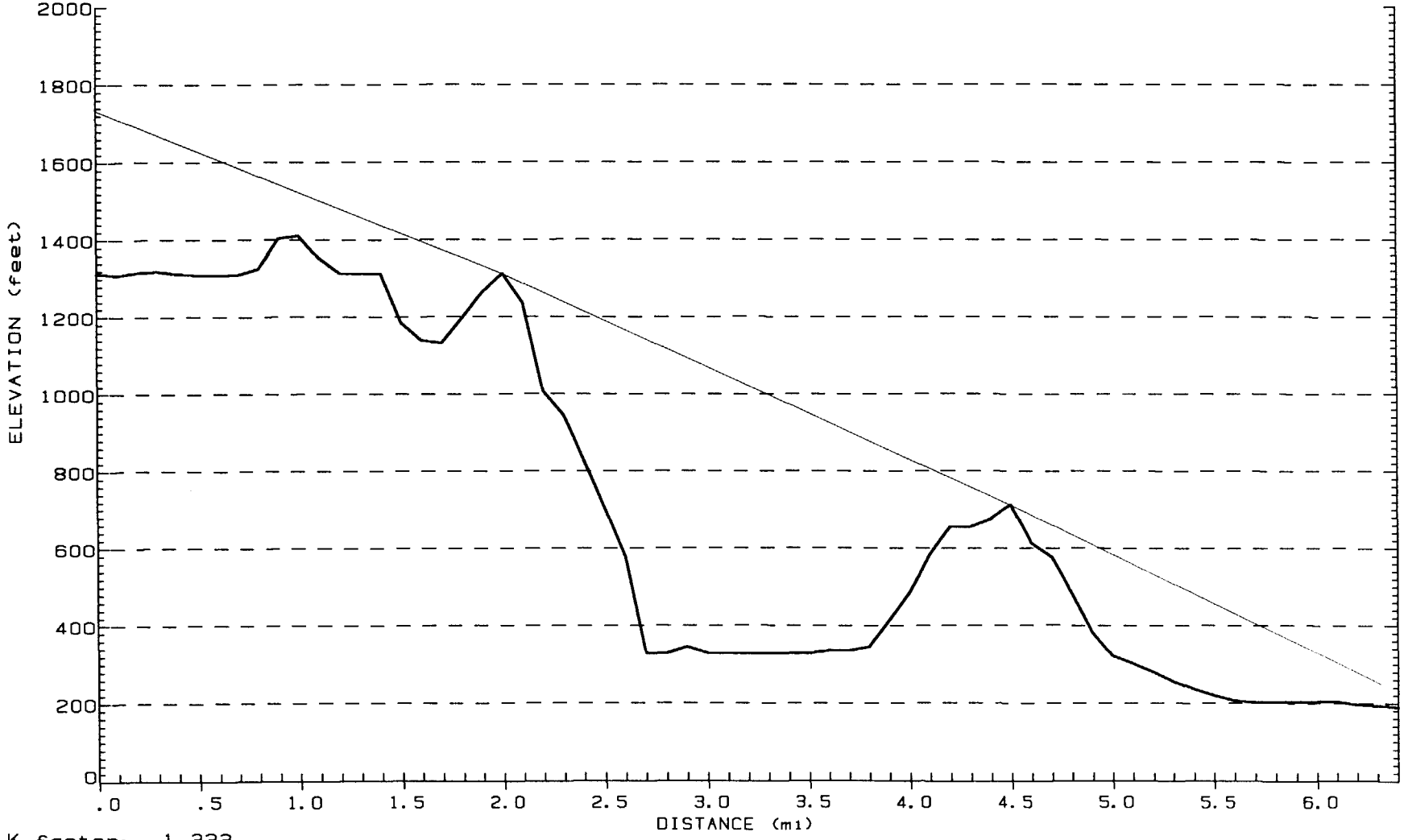
SAN JUAN TO CAGUAS, PR

JUNE 1, 1998 R5

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 122.30 degs.

Frequency: 2597.3 MHz
Path Length: 6.3 mi
Total Path Loss: 145.8 dB
Excess Path Loss: 24.9 dB

Site: CAGUAS, PR
N 18 13 55 W 66 1 45
Ant. Elev. (AMSL): 250.0 ft
Path azimuth: 302.33 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R6

Radio Path Profile

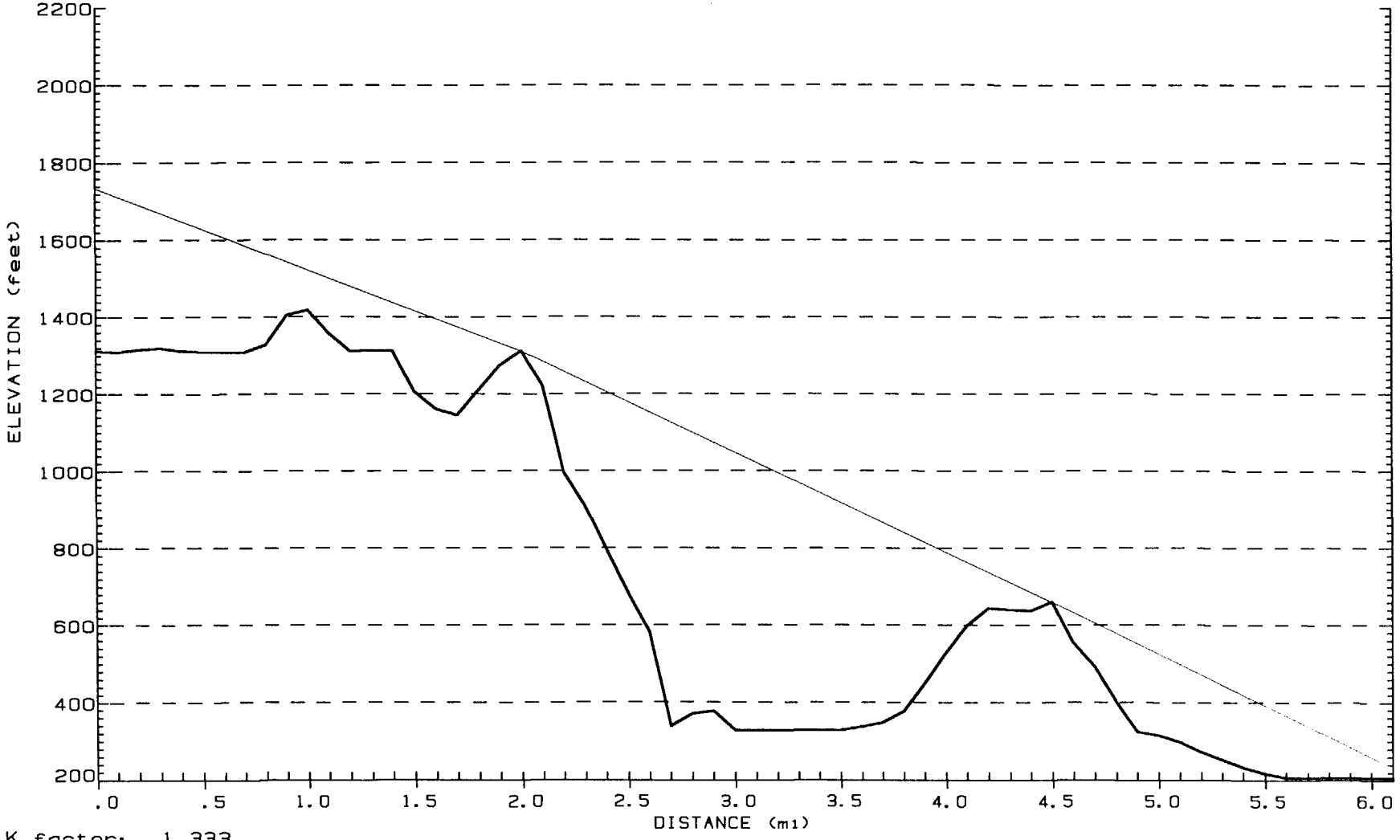
SAN JUAN TO CAGUAS, PR

JUNE 1, 1998 R6

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 122.92 degs.

Frequency: 2597.3 MHz
Path Length: 6.0 mi
Total Path Loss: 147.0 dB
Excess Path Loss: 26.5 dB

Site: CAGUAS, PR
N 18 14 0 W 66 2 0
Ant. Elev. (AMSL): 250.0 ft
Path azimuth: 302.94 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R7

Radio Path Profile

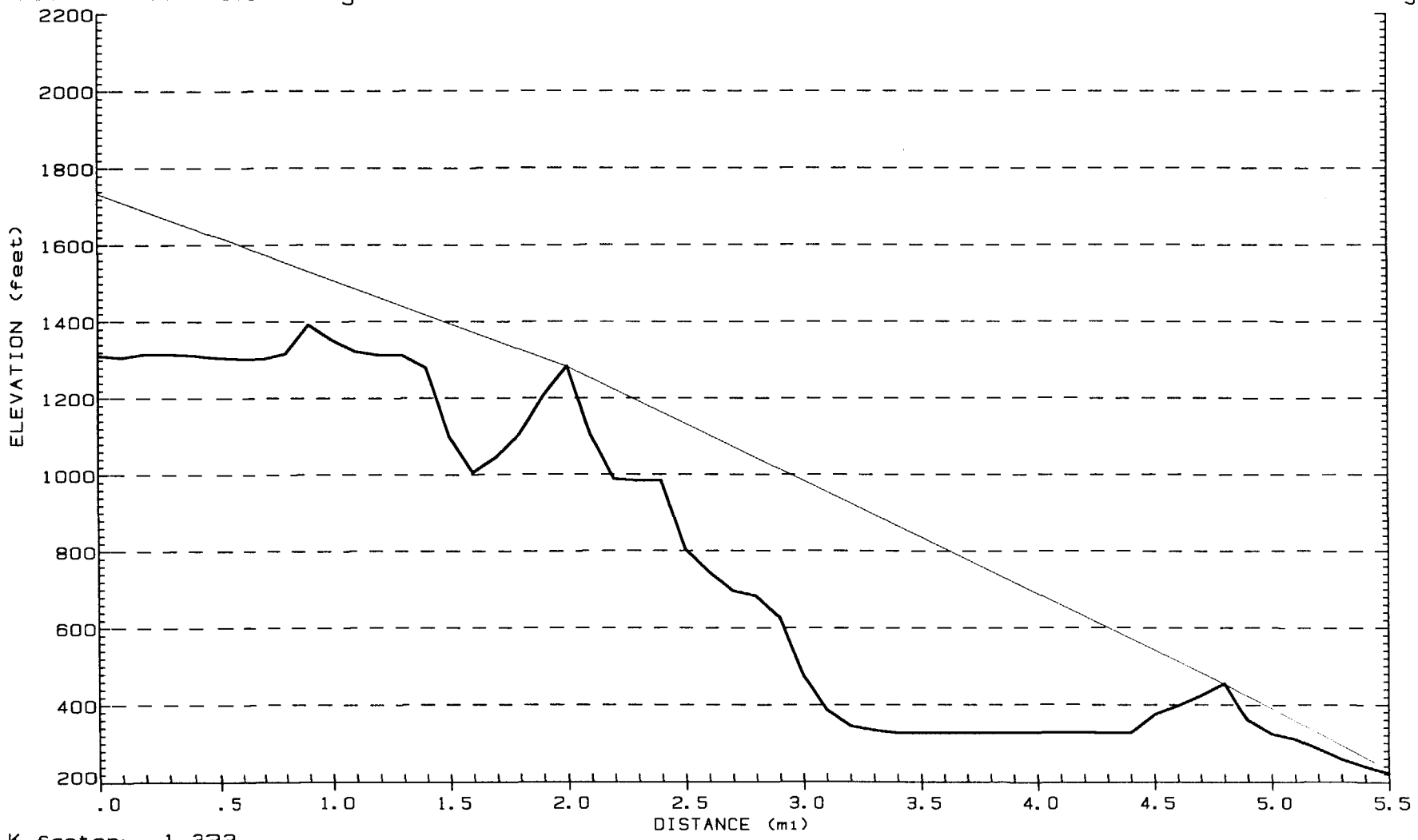
SAN JUAN TO CAGUAS, PR

JUNE 1, 1998 R7

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 118.65 degs.

Frequency: 2597.3 MHz
Path Length: 5.4 mi
Total Path Loss: 151.9 dB
Excess Path Loss: 32.3 dB

Site: CAGUAS, PR
N 18 14 35 W 66 2 16
Ant. Elev. (AMSL): 250.0 ft
Path azimuth: 298.67 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R8

Radio Path Profile

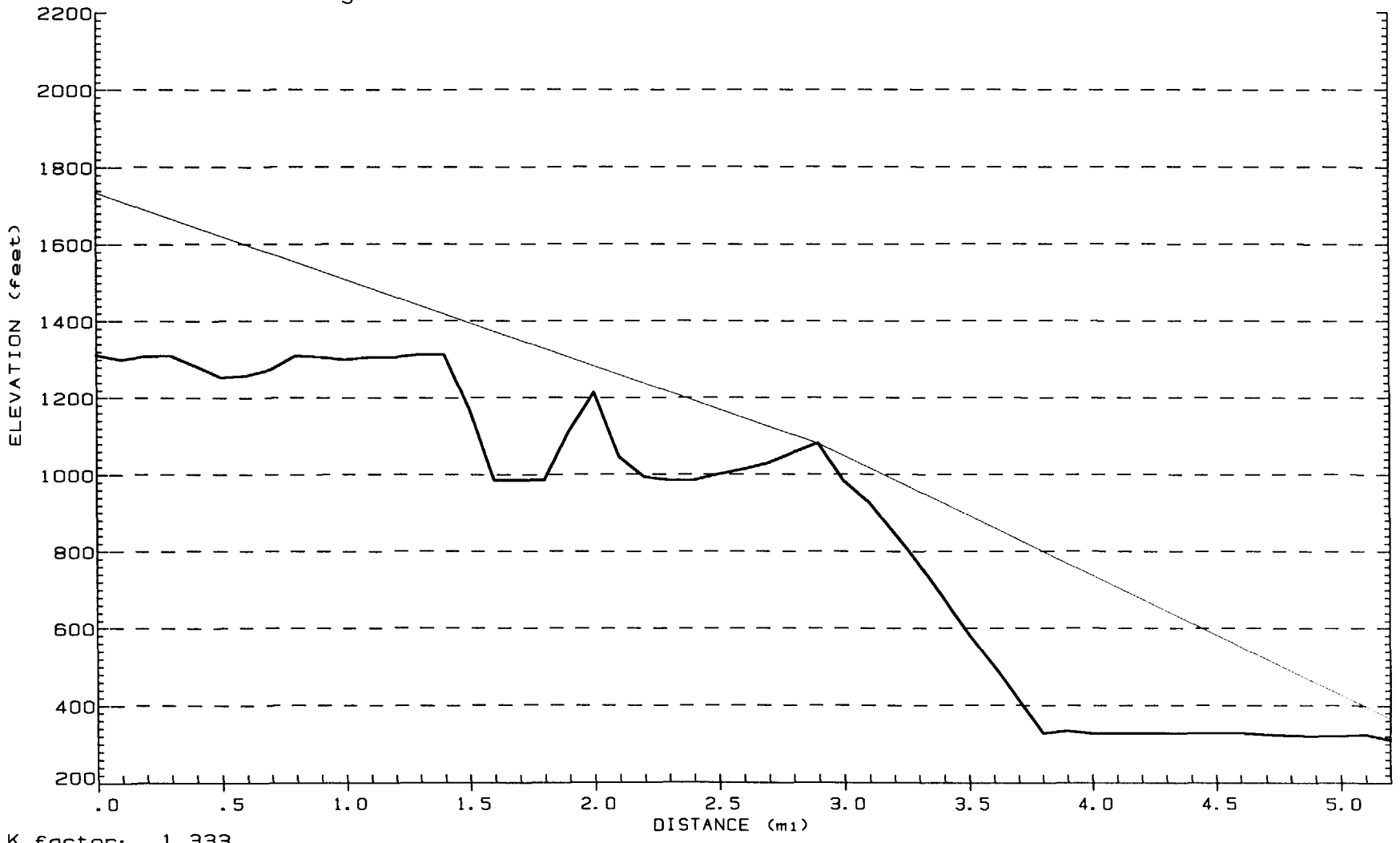
SAN JUAN TO CAGUAS, PR

JUNE 1, 1998 R8

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 111.34 degs.

Frequency: 2597.3 MHz
Path Length: 5.2 mi
Total Path Loss: 142.4 dB
Excess Path Loss: 23.2 dB

Site: CAGUAS, PR
N 18 15 13 W 66 2 14
Ant. Elev. (AMSL): 367.1 ft
Path azimuth: 291.36 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R9

Radio Path Profile

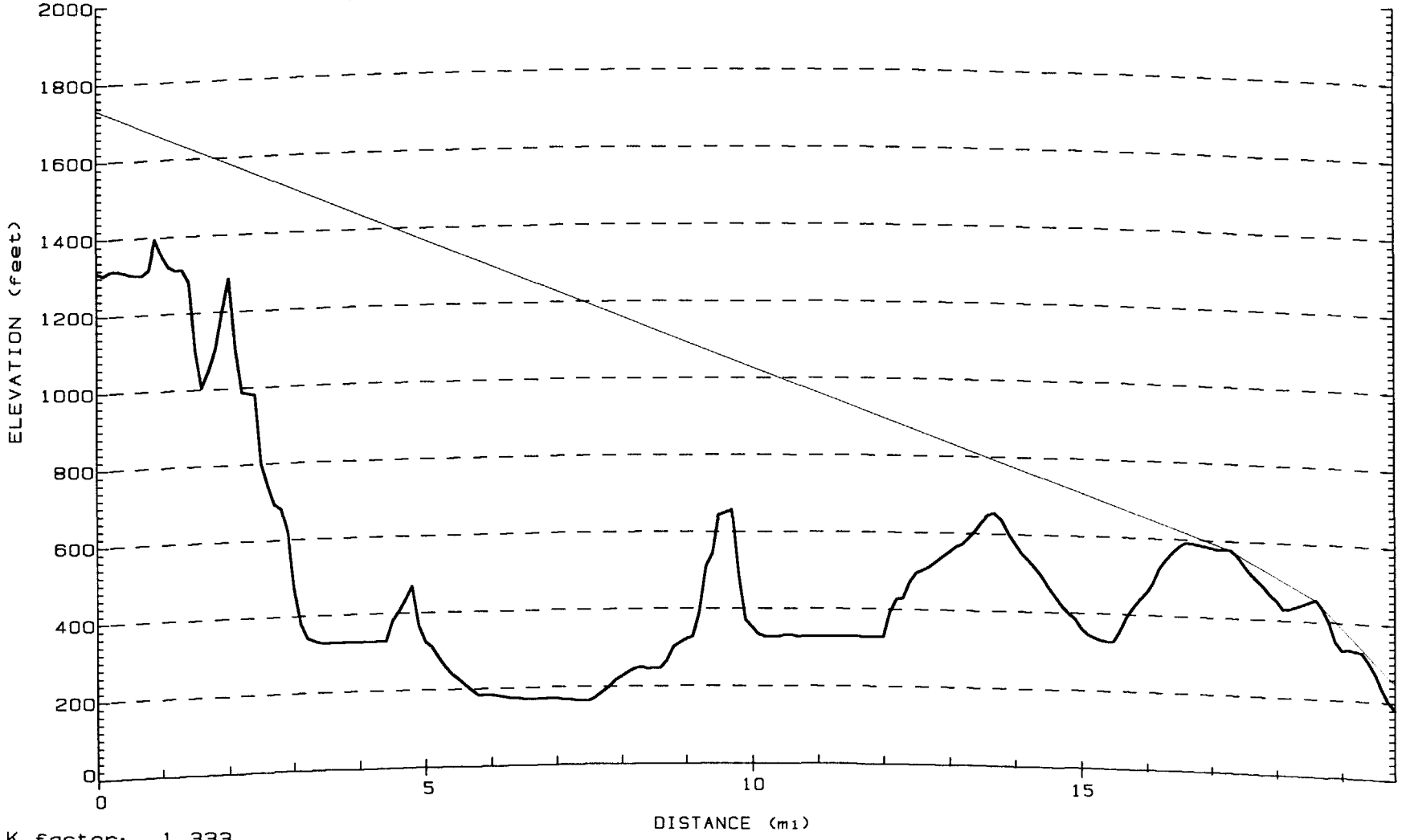
SAN JUAN TO CAGUAS, PR

JUNE 1, 1998 R9

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 118.70 degs.

Frequency: 2597.3 MHz
Path Length: 19.8 mi
Total Path Loss: 166.0 dB
Excess Path Loss: 35.2 dB

Site: HUMACAO, PR
N 18 8 36 W 65 50 48
Ant. Elev. (AMSL): 250.0 ft
Path azimuth: 298.79 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R11

Radio Path Profile

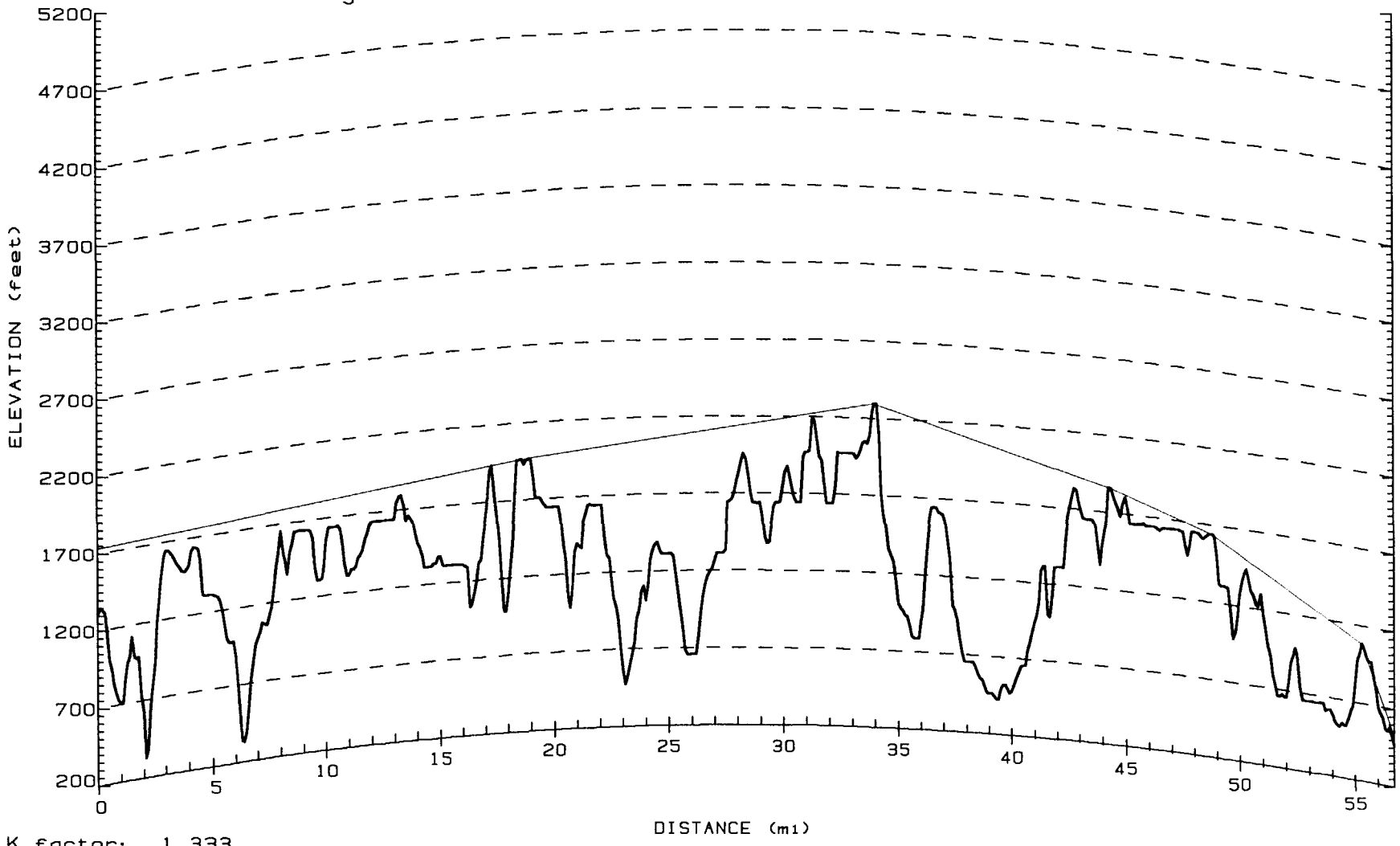
SAN JUAN TO HUMACAO, PR

JUNE 1, 1998 R11

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 268.45 degs.

Frequency: 2597.3 MHz
Path Length: 56.7 mi
Total Path Loss: 246.3 dB
Excess Path Loss: 106.3 dB

Site: GURABO, PR
N 18 15 24 W 66 58 26
Ant. Elev. (AMSL): 534.0 ft
Path azimuth: 88.18 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R12

Radio Path Profile

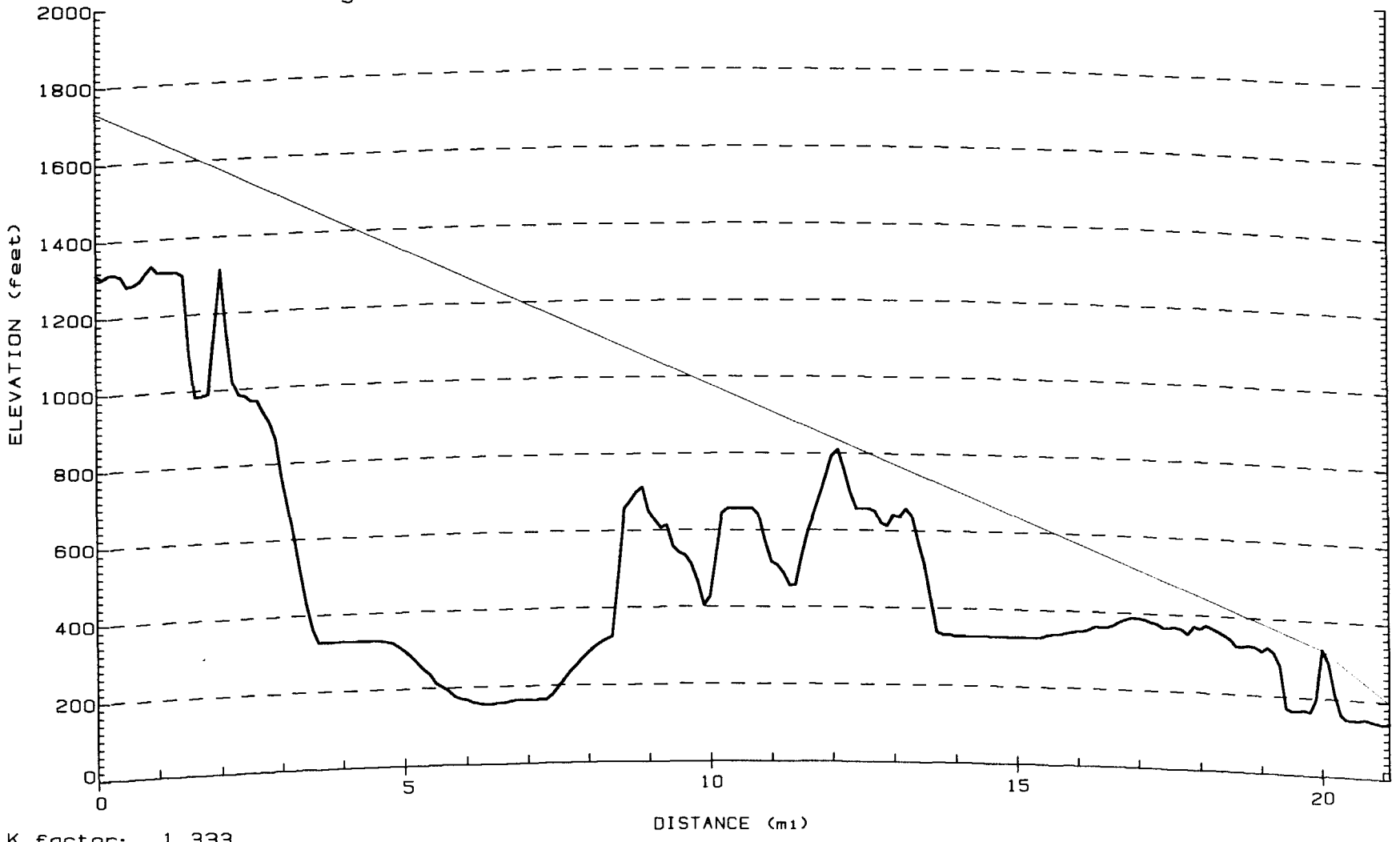
SAN JUAN TO GURABO, PR

JUNE 1, 1998 R12

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 114.76 degs.

Frequency: 2597.3 MHz
Path Length: 21.1 mi
Total Path Loss: 150.1 dB
Excess Path Loss: 18.7 dB

Site: HUMACAO, PR
N 18 9 10 W 65 49 8
Ant. Elev. (AMSL): 200.1 ft
Path azimuth: 294.85 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R13

Radio Path Profile

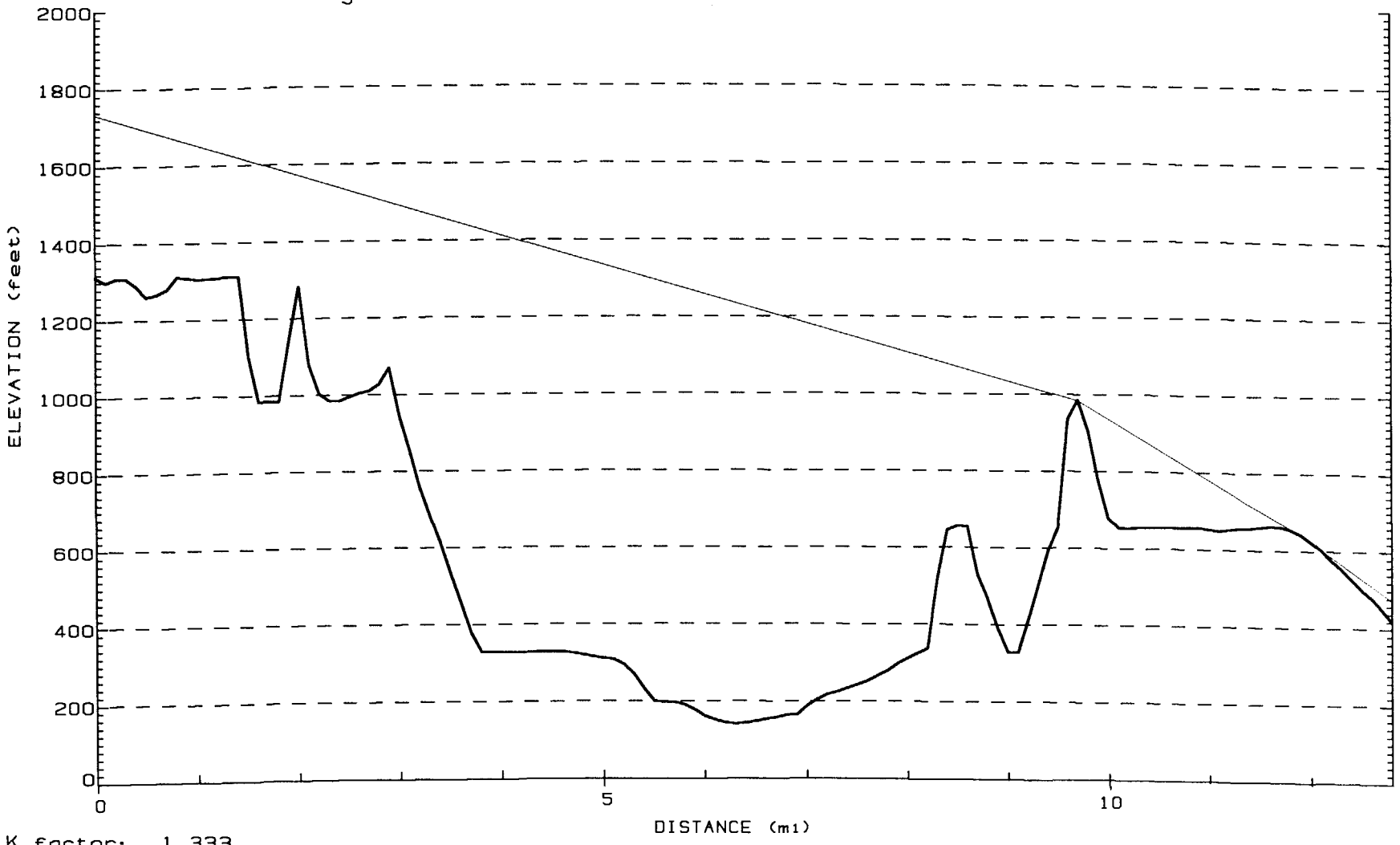
SAN JUAN TO HUMACAO, PR

JUNE 1, 1998 R13

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 112.29 degs.

Frequency: 2597.3 MHz
Path Length: 12.8 mi
Total Path Loss: 164.1 dB
Excess Path Loss: 37.1 dB

Site: JUNOOS, PR
N 18 12 38 W 65 55 49
Ant. Elev. (AMSL): 475.0 ft
Path azimuth: 292.34 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R14

Radio Path Profile

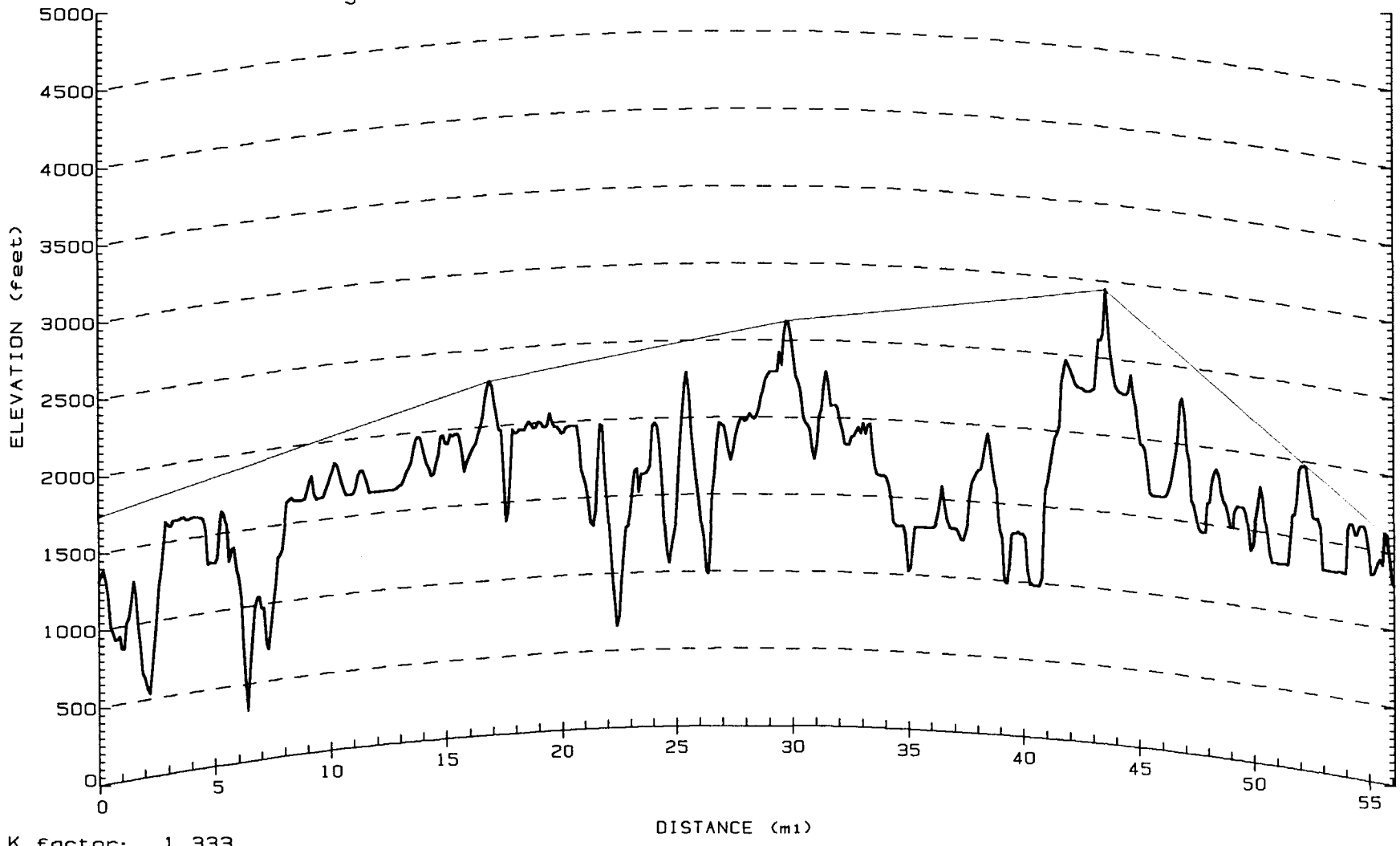
SAN JUAN TO JUNOOS, PR

JUNE 1, 1998 R14

Site: SAN JUAN, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 263.70 degs.

Frequency: 2597.3 MHz
Path Length: 56.0 mi
Total Path Loss: 246.8 dB
Excess Path Loss: 107.0 dB

Site: SAN LORENZO, PR
N 18 11 24 W 66 57 33
Ant. Elev. (AMSL): 1353.1 ft
Path azimuth: 83.44 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
VIRGINIA BEACH, VA
Consulting Engineers

951020WN R15

Radio Path Profile

SAN JUAN TO SAN LORENZO, PR

JUNE 1, 1998 R15

Hardin and Associates, Inc.
Cochannel Interference Study

Station Characteristics:

==========	Desired	Undesired
Name:	UNIV. SYS OF MENDEZ ED'L	CATHOLIC ARCHDIOCESE
Service Area:	JAYUYA, PR	SAN JUAN, PR
Call Sign:	WLX661 (920303DA)	WLX321
Frequency (MHz):	2501.3 (A1)	2501.3 (A1)
Latitude:	18 : 10 : 10	18 : 16 : 51
Longitude:	66 : 34 : 36	66 : 6 : 38
Polarization:	V	H
Tx Power (dBm):	47.00	47.00
Line Loss (dB):	6.80	2.00
Tx Ant Gain (dBi):	16.00	13.00
Tx Ant Pattern:	Ant 1 B16SA	HMD12HO
Tx Ant Orientation:	280	0
Tx Ant Height ('AGL):	91	128
Tx Site Elevation ('AMSL):	4459	1607

Interference Criteria: 45 dB

Cochannel calculations for the remaining channels in the group will not vary from the results shown below.

4/3 Earth radius Radio Horizons with 30' Rcv Ant

Desired Station:	21.2	MI
Undesired Station	23.7	MI

Distance between stations:	31.5	MI
Bearing desired/undesired:	75.8	Deg

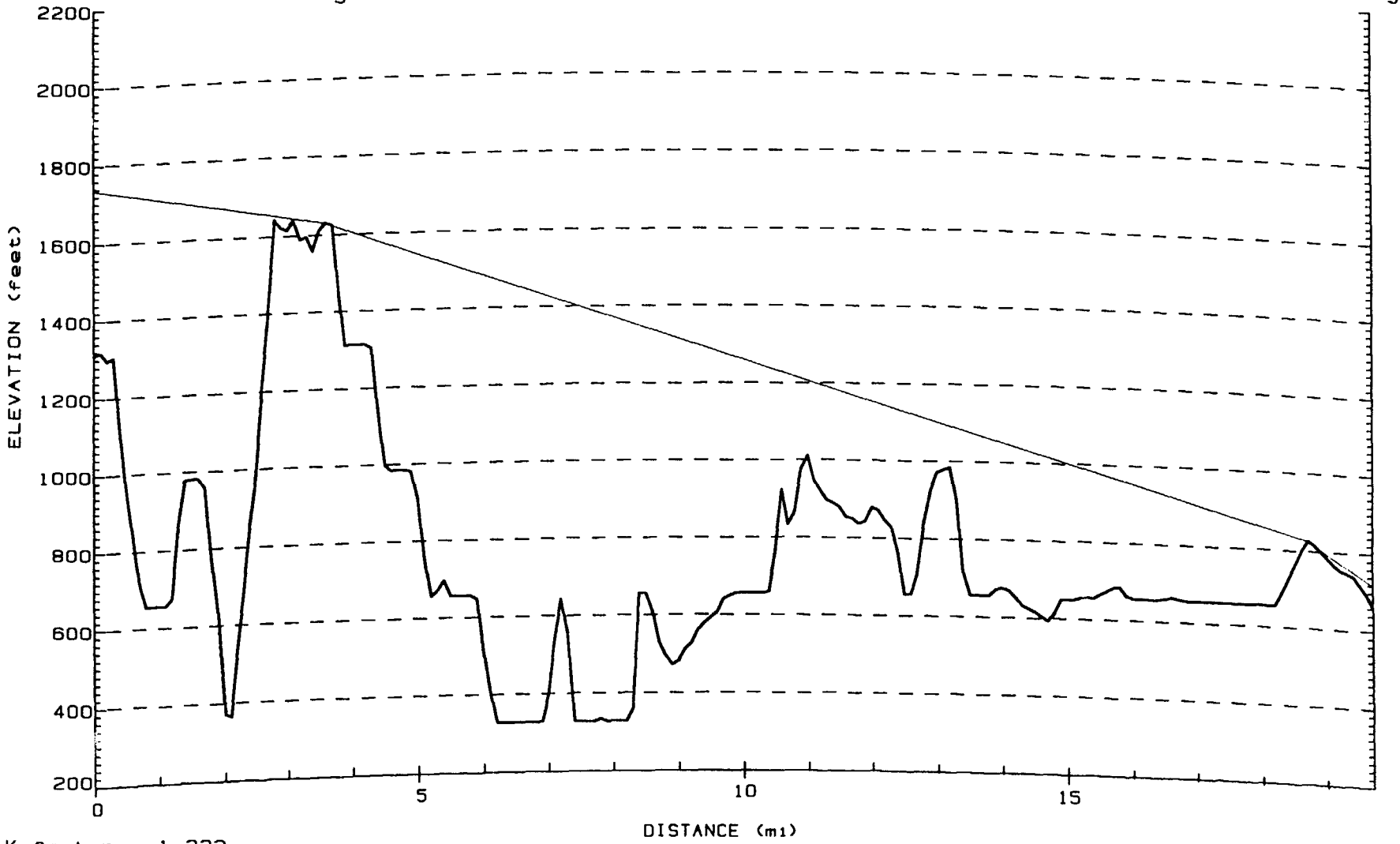
** Indicates receive antenna upgrade

Receive Station	Dist to Desired (Miles)	Bearing to Desired (Deg)	Dist to Undesired (Miles)	Bearing to Undesired (Deg)	Rx Ant Type	Rx Ant Height ('AGL)	Desired Rx Level (dBm)	Undesired Rx Level (dBm)	Rx Ant Discr (dB)	D/U Free Space (dB)	Excess Path Loss (dB) *	D/U F.S. +E.P.L. (dB)
R1	20.0	203.5	25.0	115.3	P25A48GR	50	-75.7	-74.5	47.0	45.8	0.0	45.8
R2	14.3	208.5	24.2	101.5	P25A48GR	50	-73.4	-74.3	47.0	47.9	0.0	47.9
R5	11.8	13.4	38.5	60.0	P25A48GR	50	-70.1	-78.3	47.0	55.2	0.0	55.2
R6	13.2	16.2	39.9	59.2	P25A48GR	50	-70.9	-78.6	47.0	54.7	0.0	54.7
R7	11.1	21.5	39.1	62.5	P25A48GR	50	-69.3	-78.4	47.0	56.1	0.0	56.1
R9	22.9	153.1	42.9	107.2	P25A48GR	50	-76.0	-79.2	47.0	50.2	0.0	50.2
R10	15.6	225.6	19.7	99.4	P25A48GR	50	-77.3	-72.4	47.0	42.2	37.3	79.5
R13	12.8	61.4	44.1	71.6	P25A48GR	50	-71.3	-79.5	45.0	53.2	0.0	53.2
R14	12.8	61.4	44.1	71.6	P25A48GR	50	-71.3	-79.5	45.0	53.2	0.0	53.2
R15	11.0	127.9	39.3	88.5	P2524S	50	-69.7	-78.4	34.1	42.8	83.5	126.3
R16	7.8	130.4	36.7	85.8	P2524S	50	-66.9	-77.8	35.3	46.2	0.0	46.2
R17	23.0	156.4	41.9	108.5	P25A48GR	50	-75.9	-79.0	47.0	50.1	0.0	50.1
R18	3.7	165.0	31.8	82.5	P2524S	50	-60.0	-76.6	38.0	54.6	0.0	54.6

Site: AGUAS BUENAS, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 279.53 degs.

Frequency: 2507.3 MHz
Path Length: 19.7 mi
Total Path Loss: 167.7 dB
Excess Path Loss: 37.3 dB

Site: JAYUYA, PR
N 18 19 40 W 66 24 24
Ant. Elev. (AMSL): 720.0 ft
Path azimuth: 99.43 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
Consulting Engineers
VIRGINIA BEACH, VA

WLX-661 R10

Radio Path Profile

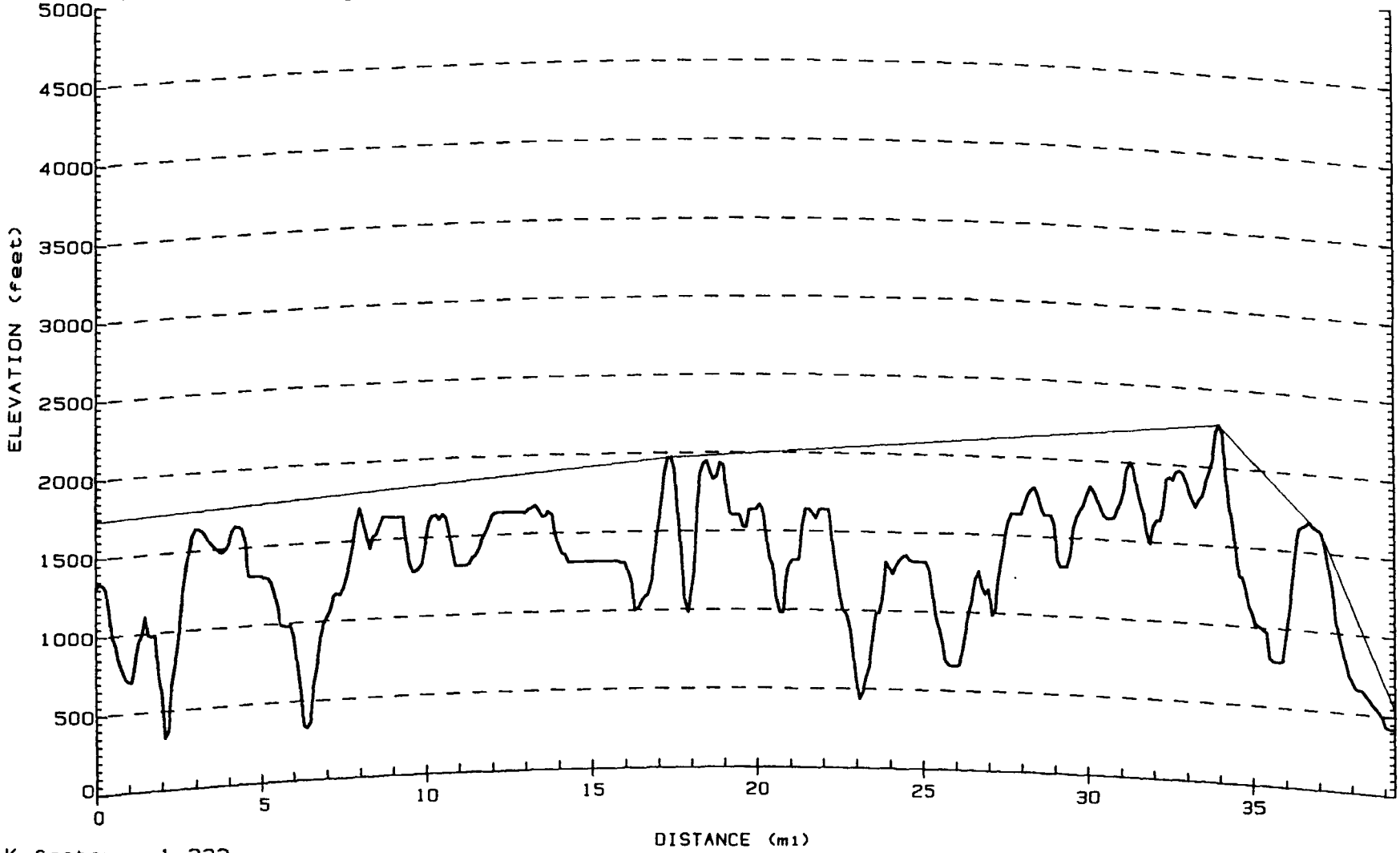
AGUAS BUENAS TO JAYUYA, PR

MARCH 27, 1998 R10

Site: AGUAS BUENAS, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 268.72 degs.

Frequency: 2507.3 MHz
Path Length: 39.3 mi
Total Path Loss: 219.9 dB
Excess Path Loss: 83.5 dB

Site: JAYUYA, PR
N 18 16 2 W 66 42 32
Ant. Elev. (AMSL): 550.0 ft
Path azimuth: 88.53 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
Consulting Engineers
VIRGINIA BEACH, VA

WLX-661 R15

Radio Path Profile

AGUAS BUENAS TO JAYUYA, PR

MARCH 27, 1998 R15

Hardin and Associates, Inc.
Cochannel Interference Study

Station Characteristics:

	Desired	Undesired
Name:	UNIV. SYS OF MENDEZ ED'L	CATHOLIC ARCHDIOCESE
Service Area:	JAYUYA, PR	SAN JUAN, PR
Call Sign:	WLX661 (920303DA)	WLX321
Frequency (MHz):	2501.3 (A1)	2501.3 (A1)
Latitude:	18 : 10 : 10	18 : 16 : 51
Longitude:	66 : 34 : 36	66 : 6 : 38
Polarization:	H	H
Tx Power (dBm):	47.00	47.00
Line Loss (dB):	16.90	2.00
Tx Ant Gain (dBi):	31.40	13.00
Tx Ant Pattern:	Ant 2 P25A72GR	HMD12HO
Tx Ant Orientation:	285	0
Tx Ant Height ('AGL):	100	128
Tx Site Elevation ('AMSL):	4459	1607

Interference Criteria: 45 dB

Cochannel calculations for the remaining channels in the group will not vary from the results shown below.

4/3 Earth radius Radio Horizons with 30' Rcv Ant

Desired Station:	21.9	MI
Undesired Station	23.7	MI

Distance between stations:	31.5	MI
Bearing desired/undesired:	75.8	Deg

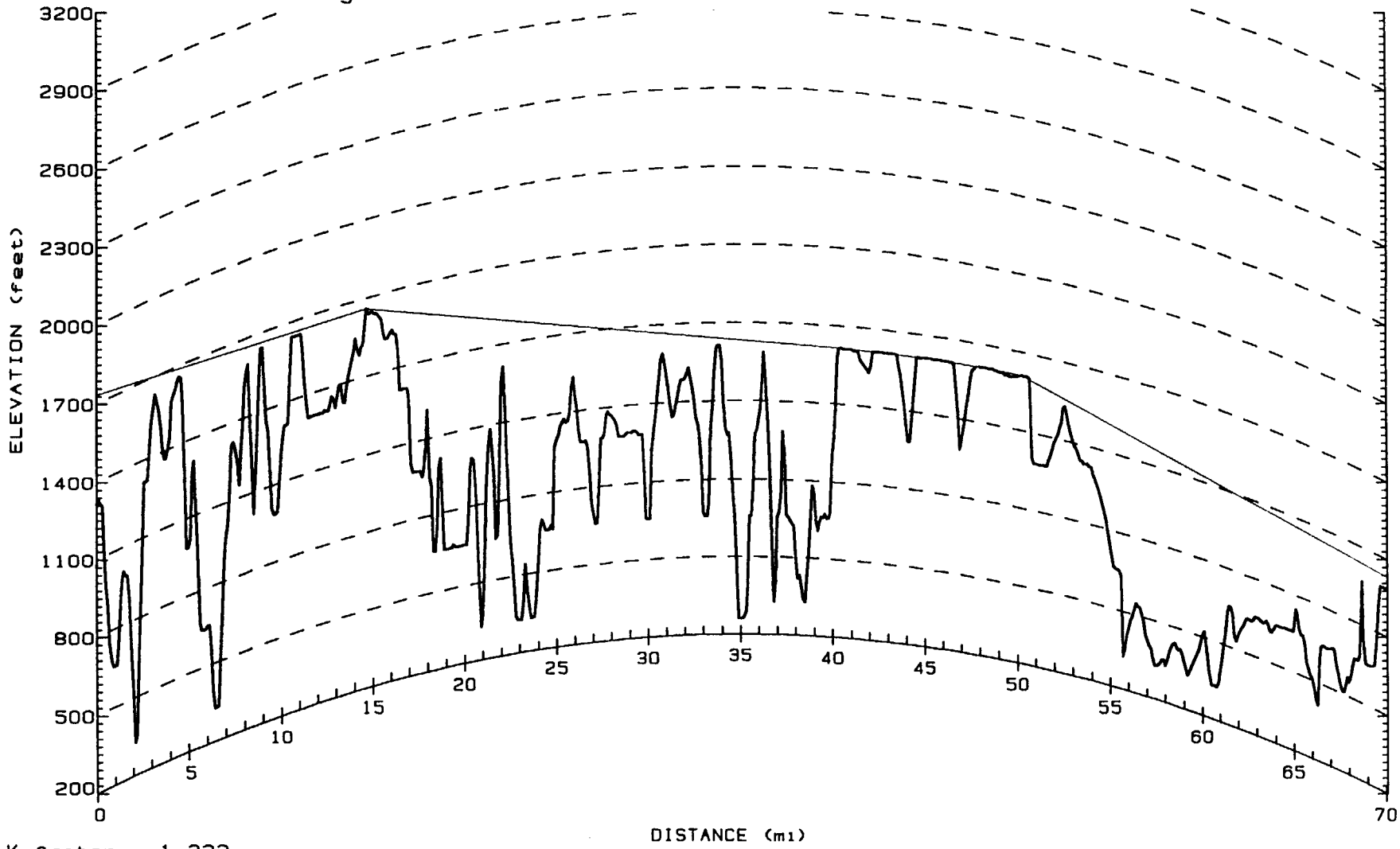
** Indicates receive antenna upgrade

Receive Station	Dist to Desired (Miles)	Bearing to Desired (Deg)	Dist to Undesired (Miles)	Bearing to Undesired (Deg)	Rx Ant Type	Rx Ant Height ('AGL)	Desired Rx Level (dBm)	Undesired Rx Level (dBm)	Rx Ant Discr (dB)	D/U Free Space (dB)	Excess Path Loss (dB) *	D/U F.S. +E.P.L. (dB)
R8	40.8	104.5	70.1	92.0	P25A48GR	50	-75.3	-83.5	24.0	32.2	78.8	111.0

Site: AGUAS BUENAS, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 272.29 degs.

Frequency: 2507.3 MHz
Path Length: 70.1 mi
Total Path Loss: 220.3 dB
Excess Path Loss: 78.8 dB

Site: JAYUYA, PR
N 18 19 6 W 67 10 42
Ant. Elev. (AMSL): 1035.0 ft
Path azimuth: 91.95 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
Consulting Engineers
VIRGINIA BEACH, VA

WLX-661 R8

Radio Path Profile

AGUAS BUENAS TO JAYUYA, PR

MARCH 27, 1998 R8

Hardin and Associates, Inc.
Cochannel Interference Study

Station Characteristics:

==========	Desired	Undesired
Name:	UNIV. SYS OF MENDEZ ED'L	CATHOLIC ARCHDIOCESE
Service Area:	JAYUYA, PR	SAN JUAN, PR
Call Sign:	WLX661 (920303DA)	WLX321
Frequency (MHz):	2501.3 (A1)	2501.3 (A1)
Latitude:	18 : 10 : 10	18 : 16 : 51
Longitude:	66 : 34 : 36	66 : 6 : 38
Polarization:	V	H
Tx Power (dBm):	44.00	47.00
Line Loss (dB):	7.20	2.00
Tx Ant Gain (dBi):	18.00	13.00
Tx Ant Pattern:	Ant 3 B8SD	HMD12HO
Tx Ant Orientation:	120	0
Tx Ant Height ('AGL):	85	128
Tx Site Elevation ('AMSL):	4183	1607

Interference Criteria: 45 dB

Cochannel calculations for the remaining channels in the group will not vary from the results shown below.

4/3 Earth radius Radio Horizons with 30' Rcv Ant

Desired Station:	20.8	MI
Undesired Station	23.7	MI

Distance between stations:	31.5	MI
Bearing desired/undesired:	75.8	Deg

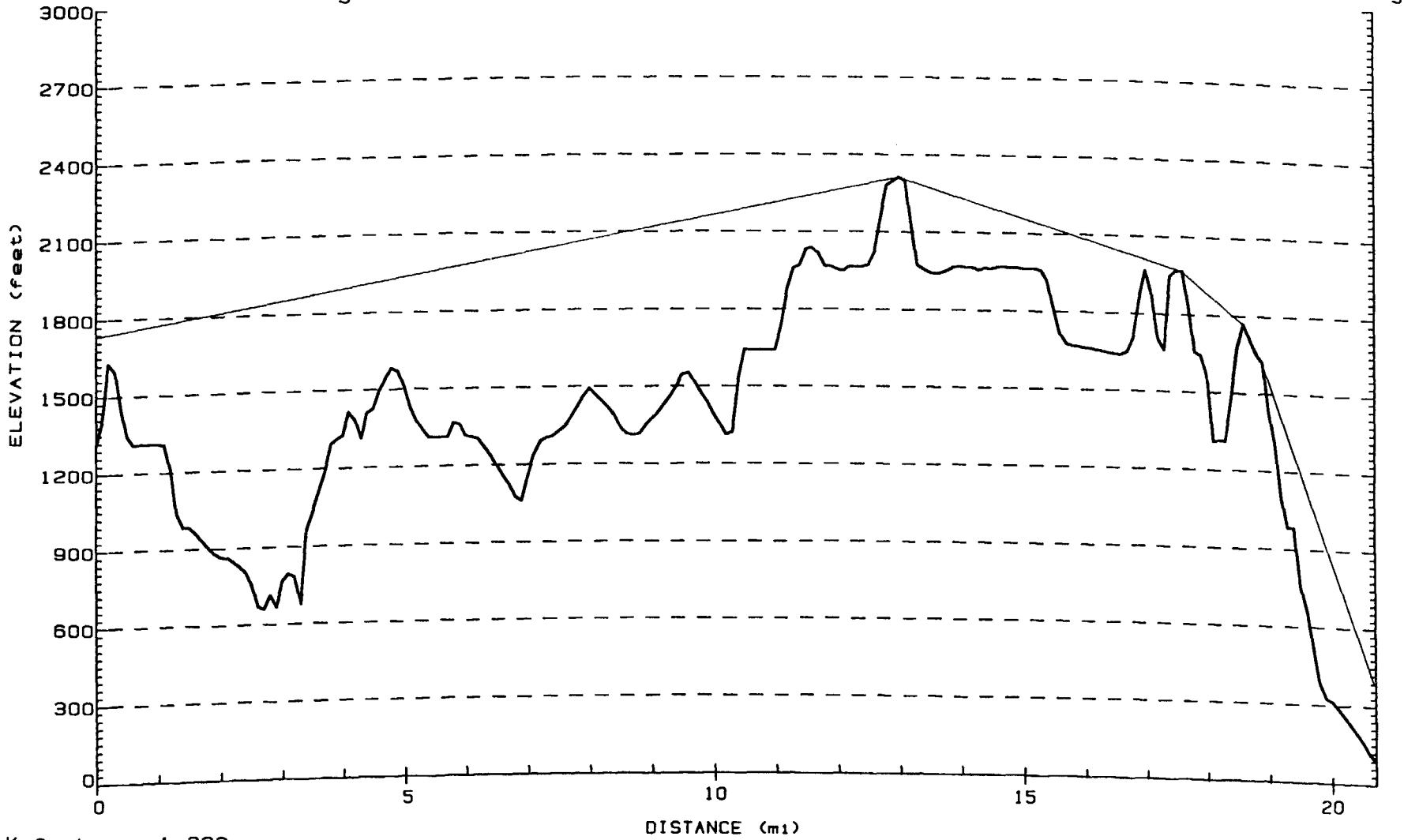
** Indicates receive antenna upgrade

Receive Station	Dist to Desired (Miles)	Bearing to Desired (Deg)	Dist to Undesired (Miles)	Bearing to Undesired (Deg)	Rx Ant Type	Rx Ant Height ('AGL)	Desired Rx Level (dBm)	Undesired Rx Level (dBm)	Rx Ant Discr (dB)	D/U Free Space (dB)	Excess Path Loss (dB) *	D/U F.S. +E.P.L. (dB)
R3	35.0	291.7	20.7	354.6	P25A48GR	50	-81.0	-72.9	47.0	38.9	105.9	144.8
R4	6.2	297.5	27.2	67.1	P25A48GR	50	-65.8	-75.3	47.0	56.5	0.0	56.5
R11	15.7	293.1	21.3	49.4	P25A48GR	50	-85.8	-73.1	47.0	34.3	64.2	98.5
R12	22.6	306.0	24.3	30.5	P25A48GR	50	-89.0	-74.3	47.0	32.3	51.0	83.3

Site: AGUAS BUENAS, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 174.63 degs.

Frequency: 2507.3 MHz
Path Length: 20.7 mi
Total Path Loss: 236.7 dB
Excess Path Loss: 105.9 dB

Site: JAYUYA, PR
N 17 58 59 W 66 4 52
Ant. Elev. (AMSL): 375.0 ft
Path azimuth: 354.64 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
Consulting Engineers
VIRGINIA BEACH, VA

WLX-661 R3

Radio Path Profile

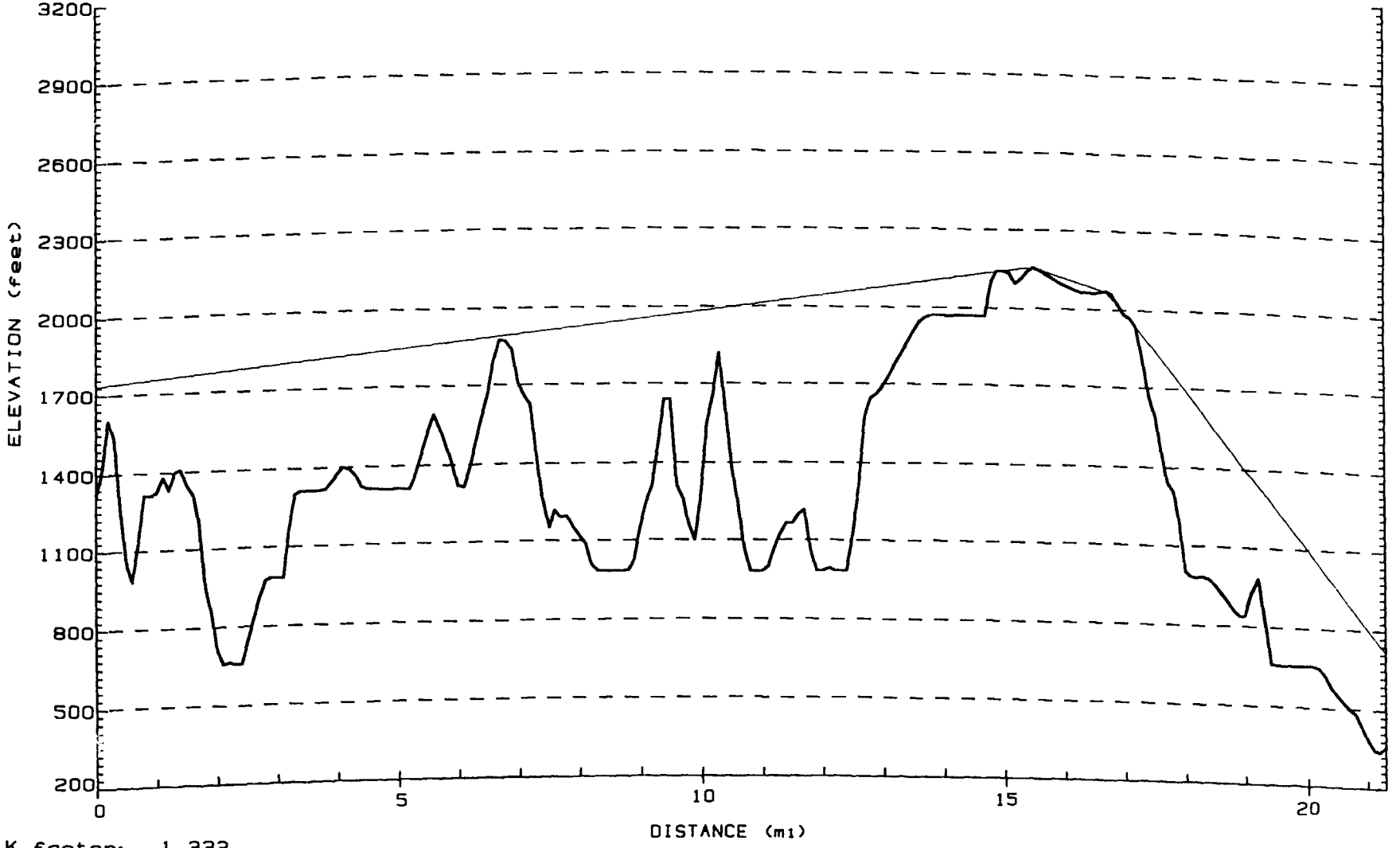
AGUAS BUENAS TO JAYUYA, PR

MARCH 27, 1998 R3

Site: AGUAS BUENAS, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 229.52 degs.

Frequency: 2507.3 MHz
Path Length: 21.3 mi
Total Path Loss: 195.3 dB
Excess Path Loss: 64.2 dB

Site: JAYUYA, PR
N 18 4 50 W 66 21 26
Ant. Elev. (AMSL): 720.0 ft
Path azimuth: 49.44 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
Consulting Engineers
VIRGINIA BEACH, VA

WLX-661 R11

Radio Path Profile

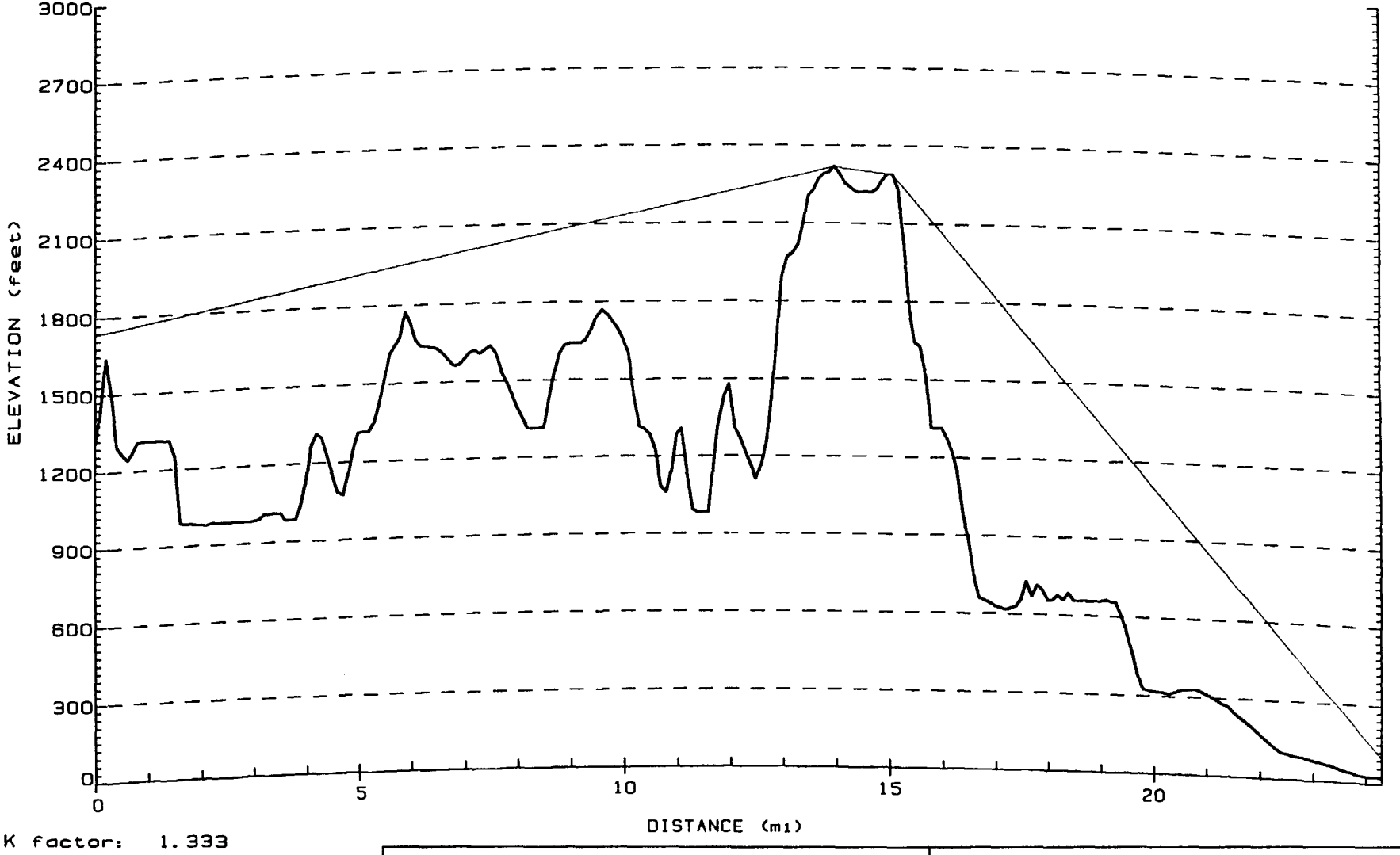
AGUAS BUENAS TO JAYUYA, PR

MARCH 27, 1998 R11

Site: AGUAS BUENAS, PR
N 18 16 51 W 66 6 38
Ant. Elev. (AMSL): 1735.0 ft
Path azimuth: 210.52 degs.

Frequency: 2507.3 MHz
Path Length: 24.3 mi
Total Path Loss: 183.3 dB
Excess Path Loss: 51.0 dB

Site: JAYUYA, PR
N 17 58 40 W 66 17 54
Ant. Elev. (AMSL): 100.1 ft
Path azimuth: 30.46 degs.



K factor: 1.333

3 Second Database - WGS 72
Rain loss: .0 dB
Urban loss: .0 dB
Foliage loss: .0 dB

HARDIN AND ASSOCIATES, INC
Consulting Engineers
VIRGINIA BEACH, VA

WLX-661 R12

Radio Path Profile

AGUAS BUENAS TO JAYUYA, PR

MARCH 27, 1998 R12

FIGURE 3

ADJACENT CHANNEL ITFS INTERFERENCE ANALYSES

Hardin and Associates, Inc.
Adjacent Channel Interference Study

Station Characteristics:

==========	Desired	Undesired
Name:	HITN	CATHOLIC ARCHDIOCESE
Service Area:	JAYUYA, PR	SAN JUAN, PR
Call Sign:	950215DQ	WLX321
Frequency (MHz):	2507.3 (B1)	2501.3 (A1)
Latitude:	18 : 10 : 28	18 : 16 : 51
Longitude:	66 : 35 : 31	66 : 6 : 38
Polarization:	V	H
Tx Power (dBm):	40.00	47.00
Line Loss (dB):	1.50	2.00
Tx Ant Gain (dBi):	13.00	13.00
Tx Ant Pattern:	HMD12VO	HMD12HO
Tx Ant Orientation:	0	0
Tx Ant Height ('AGL):	50	128
Tx Site Elevation ('AMSL):	4256	1607

Interference Criteria: 0 dB

Adjacent channel calculations for the remaining channels in the group will not vary more than .05dB from the results shown below.

4/3 Earth radius Radio Horizons with 30' Rcv Ant

Desired Station:	17.7	MI
Undesired Station	23.7	MI

Distance between stations:	32.4	MI
Bearing desired/undesired:	76.8	Deg

** Indicates receive antenna upgrade

Receive Station	Dist to Desired (Miles)	Bearing to Desired (Deg)	Dist to Undesired (Miles)	Bearing to Undesired (Deg)	Rx Ant Type	Rx Ant Height ('AGL)	Desired Rx Level (dBm)	Undesired Rx Level (dBm)	Rx Ant Discr (dB)	D/U Free Space (dB)	Excess Path Loss (dB) *	D/U F.S. +E.P.L. (dB)
RT1	20.0	202.8	26.3	114.8	L2518	50	-79.1	-75.0	37.6	33.5	0.0	33.5
RT2	22.9	214.4	21.9	121.7	L2518	50	-80.3	-73.4	38.0	31.1	0.0	31.1
RT3	9.8	4.8	36.7	62.1	L2512	50	-72.9	-77.9	25.0	29.9	0.0	29.9
RT4	40.7	119.1	68.2	100.4	L2536	50	-85.3	-83.2	39.2	37.1	0.0	37.1
RT5	36.1	128.9	61.6	104.3	L2521	50	-84.2	-82.4	33.0	31.1	0.0	31.1
RT6	25.6	148.6	47.1	107.8	L2521	50	-81.2	-80.0	35.3	34.1	0.0	34.1
RT7	23.5	153.4	44.2	107.9	L2521	50	-80.5	-79.5	36.0	35.0	0.0	35.0
R8	39.7	104.4	70.1	92.0	FCC	50	-85.1	-83.5	28.0	26.4	0.0	26.4
R9	22.2	155.0	42.9	107.2	FCC	50	-80.0	-79.2	36.0	35.2	0.0	35.2

Hardin & Associates, Inc.

Station Characteristics	Desired			Undesired		
Name:	HITN			CATHOLIC ARCHDIOCESE		
Service Area:	JAYUYA, PR			SAN JUAN, PR		
Call Sign:	950215DQ			WLX321		
Frequency (MHz):		2507.3 (B1)			2501.3 (A1)	
Latitude:	18 :	10 :	28	18 :	16 :	51
Longitude:	66 :	35 :	31	66 :	6 :	38
Polarization:		V			H	
Tx Power (dBm):		40.0			47.0	
Line Loss (dB):		1.5			2.0	
Tx Ant Gain (dBi):		13.0			13.0	
Tx Ant Pattern:		HMD12VO			HMD12HO	
Tx Ant Orientation:		0.0			0.0	
Tx Ant Height ('AGL):		50			128	
Tx Site Elevation ('AMSL):		4256			1607	
Electrical Beamtilt (+ assumes down tilt) :		0.5			0.5	
Mechanical Beamtilt (+ assumes down tilt):		0.0			0.0	
PSA Center						
Latitude:	18 :	10 :	28			
Longitude:	66 :	35 :	31			

Adjacent Channel Interference Analysis

Interference Criterion: 0 dB

Adjacent channel calculations for the remaining channels in the group will not vary more than .05dB from the results shown below.

4/3 Earth radius Radio Horizons with 30' Rcv Ant

Desired Station: 17.7 MI

Undesired Station 23.7 MI

Distance between stations: 32.4 MI

Bearing desired/undesired: 76.8 Deg

RECEIVE ANTENNA = FCC

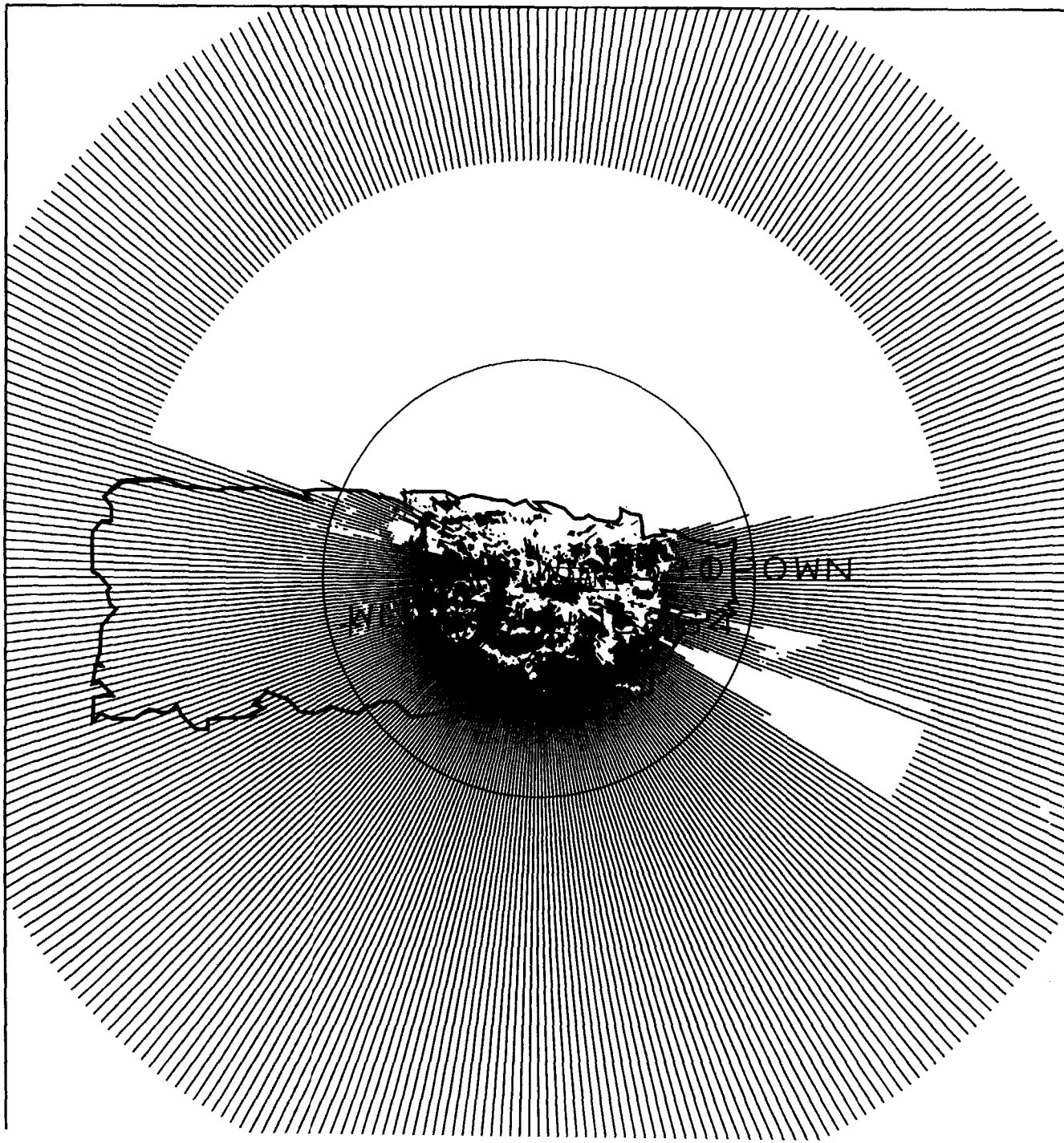
RECEIVE ANTENNA HEIGHT = 30 FT.

Distance from Desired (miles)

Bearing (Deg)	1.4	2.8	4.2	5.6	7.0	8.4	9.8	11.2	12.6	14.0	15.4	16.8	18.2	19.6	21.0	22.4	23.8	25.2	26.6	28.0	29.4	30.8	32.2	33.6	35.0
0	57.7	50.6	47.0	44.5	42.6	41.0	39.7	38.5	37.6	36.7	36.0	35.3	34.7	34.2	33.8	33.3	33.0	32.6	32.3	32.1	31.8	31.6	31.4	31.2	31.1
10	60.2	53.7	49.8	46.7	43.2	40.6	39.2	38.0	37.0	36.1	35.3	34.5	33.9	33.3	32.8	32.4	32.0	31.6	31.3	31.0	30.8	30.6	30.3	30.2	30.0
20	61.7	55.1	51.2	48.2	45.7	43.6	41.7	39.9	37.3	35.3	34.4	33.7	33.0	32.3	31.8	31.3	30.8	30.4	30.1	29.8	29.5	29.3	29.1	28.9	28.7
30	63.2	56.6	52.5	49.5	46.8	44.7	42.8	41.1	39.6	37.9	36.5	34.7	32.4	31.2	30.5	29.9	29.4	29.0	28.6	28.3	28.0	27.7	27.5	27.3	27.2
40	64.6	58.1	54.0	50.9	48.3	46.1	44.1	42.3	40.5	38.9	37.4	36.0	34.5	33.0	32.1	29.4	27.8	27.2	26.8	26.4	26.0	25.7	25.5	25.4	25.2
50	65.4	59.1	55.2	52.2	49.7	47.5	45.5	43.7	42.0	40.2	38.5	36.9	35.3	33.7	32.2	30.8	29.1	28.0	24.4	23.9	23.4	23.1	22.8	22.7	22.6
60	65.4	59.0	55.1	52.2	49.8	47.8	46.0	44.3	42.8	41.3	39.9	38.3	36.7	35.0	33.2	31.4	29.5	27.5	25.7	23.5	20.2	19.2	18.8	18.7	18.8
70	65.4	59.0	55.0	52.1	49.7	47.6	45.8	44.1	42.5	40.9	39.4	38.0	36.5	35.0	33.5	31.9	30.2	28.5	26.2	23.2	19.4	15.4	11.1	11.3	12.2
80	65.4	59.0	55.0	52.1	49.7	47.6	45.7	44.0	42.4	40.9	39.3	37.8	36.3	34.8	33.2	31.5	29.7	27.8	25.5	22.9	19.8	13.6	4.3	5.7	8.7
90	65.4	59.0	55.0	52.1	49.7	47.7	45.9	44.2	42.6	41.1	39.7	38.3	36.9	35.6	33.8	32.0	29.9	27.7	25.4	23.1	20.8	17.1	16.7	16.6	16.8
100	65.4	59.0	55.1	52.2	49.9	47.9	46.0	44.2	42.4	40.8	39.1	37.4	35.8	34.1	32.4	30.8	29.3	27.4	26.3	22.7	22.2	21.8	21.5	21.4	21.3
110	65.1	58.5	54.5	51.4	48.8	46.6	44.6	42.7	41.0	39.3	37.7	36.2	34.7	33.4	31.9	30.7	28.0	26.4	25.9	25.5	25.1	24.8	24.6	24.4	24.3
120	63.7	57.1	53.0	50.0	47.3	45.2	43.3	41.5	39.8	38.3	36.8	35.4	33.9	31.7	30.0	29.4	28.8	28.4	27.9	27.6	27.3	27.0	26.8	26.6	26.5
130	62.1	55.6	51.6	48.6	46.1	44.1	42.1	40.3	39.0	36.5	34.1	33.3	32.5	31.9	31.3	30.8	30.3	29.9	29.6	29.2	29.0	28.7	28.5	28.3	28.2
140	60.9	54.4	50.2	47.2	45.1	42.4	39.5	37.8	36.7	35.8	34.9	34.2	33.6	33.0	32.4	32.0	31.6	31.2	30.9	30.6	30.3	30.1	29.9	29.7	29.6
150	59.7	52.6	47.5	44.4	42.4	40.8	39.5	38.3	37.3	36.5	35.7	35.0	34.4	33.9	33.4	33.0	32.6	32.3	32.0	31.7	31.4	31.2	31.0	30.8	30.7
160	56.7	50.7	47.2	44.7	42.8	41.2	40.0	38.9	37.9	37.1	36.4	35.8	35.2	34.7	34.3	33.9	33.5	33.2	32.9	32.6	32.4	32.2	32.0	31.8	31.6
170	56.8	50.8	47.4	44.9	43.1	41.6	40.4	39.3	38.5	37.7	37.0	36.4	35.9	35.4	35.0	34.6	34.3	33.9	33.7	33.4	33.2	32.9	32.8	32.6	32.4
180	56.9	51.0	47.6	45.2	43.4	42.0	40.8	39.8	38.9	38.2	37.5	37.0	36.5	36.0	35.6	35.2	34.9	34.6	34.3	34.1	33.8	33.6	33.4	33.2	33.1
190	56.9	51.1	47.7	45.4	43.6	42.3	41.1	40.1	39.3	38.6	38.0	37.4	36.9	36.5	36.1	35.8	35.4	35.1	34.9	34.6	34.4	34.2	34.0	33.8	33.6
200	57.0	51.2	47.9	45.6	43.9	42.5	41.4	40.5	39.7	39.0	38.4	37.8	37.4	36.9	36.5	36.2	35.9	35.6	35.3	35.1	34.8	34.6	34.4	34.2	34.1
210	57.0	51.3	48.0	45.8	44.1	42.7	41.6	40.7	39.9	39.3	38.7	38.2	37.7	37.3	36.9	36.5	36.2	35.9	35.7	35.4	35.2	35.0	34.8	34.6	34.4
220	57.1	51.3	48.1	45.9	44.2	42.9	41.8	40.9	40.2	39.5	38.9	38.4	37.9	37.5	37.2	36.8	36.5	36.2	35.9	35.7	35.5	35.3	35.1	34.9	34.7
230	57.1	51.4	48.2	46.0	44.3	43.0	42.0	41.1	40.3	39.7	39.1	38.6	38.1	37.7	37.4	37.0	36.7	36.4	34.2	33.9	30.7	30.5	30.3	30.1	26.9
240	57.1	51.4	46.2	44.1	39.4	38.1	34.1	33.2	32.5	28.8	28.2	27.7	27.3	26.9	26.5	26.2	25.8	25.6	25.3	24.1	23.8	23.6	23.4	23.2	23.1
250	43.1	37.5	33.3	31.1	29.5	28.2	27.1	26.3	25.0	24.4	23.8	23.3	22.8	22.4	22.1	21.2	20.9	20.6	20.4	20.1	19.9	19.7	19.5	19.3	19.2
260	41.1	35.5	32.3	30.1	28.5	27.2	26.2	25.3	24.5	23.9	23.3	22.8	22.4	21.9	21.6	21.2	20.9	20.6	20.4	20.1	19.9	19.7	19.5	19.3	19.2
270	49.1	43.4	37.3	35.1	33.4	32.2	31.1	30.2	29.5	28.8	27.3	26.8	26.3	25.9	25.5	23.9	23.6	23.3	23.0	22.8	21.9	21.7	21.5	21.3	21.1
280	57.1	51.4	48.2	46.0	44.4	43.1	42.0	41.1	40.4	39.7	39.2	38.6	36.2	35.8	35.4	32.1	31.8	31.5	28.2	28.0	27.7	24.5	24.3	24.2	24.0
290	57.1	51.4	48.1	45.9	44.3	43.0	41.9	41.0	40.2	39.6	39.0	38.5	38.0	37.6	37.2	36.9	36.6	36.3	36.0	35.8	35.6	35.4	35.2	35.0	34.8
300	57.0	51.3	48.0	45.8	44.1	42.8	41.7	40.8	40.0	39.4	38.8	38.2	37.8	37.4	37.0	36.6	36.3	36.0	35.8	35.5	35.3	35.1	34.9	34.7	34.5
310	57.0	51.2	47.9	45.6	43.9	42.6	41.5	40.6	39.8	39.1	38.5	38.0	37.5	37.0	36.7	36.3	36.0	35.7	35.4	35.2	35.0	34.8	34.6	34.4	34.2
320	56.9	51.1	47.8	45.5	43.7	42.4	41.2	40.3	39.5	38.7	38.1	37.6	37.1	36.7	36.3	35.9	35.6	35.3	35.0	34.8	34.5	34.3	34.1	34.0	33.8
330	56.9	51.0	47.6	45.3	43.5	42.1	40.9	39.9	39.1	38.3	37.7	37.1	36.6	36.2	35.8	35.4	35.1	34.8	34.5	34.3	34.0	33.8	33.6	33.4	33.3
340	56.8	50.9	47.4	45.0	43.2	41.7	40.5	39.5	38.6	37.9	37.2	36.6	36.1	35.6	35.2	34.8	34.5	34.2	33.9	33.7	33.4	33.2	33.0	32.8	32.7

FIGURE 4

RADIO SHADOW MAPS



MSITE (tm) - EDX Engineering, Inc.

Propagation model: Free space + RMD
Time: 50.00% Loc: 50.00% Margin: 10.0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factor: 1.333
RX Antenna - Type: DA-TX orien.
Height: 30.0 feet AGL Gain: -2.2 dBd

Line-of-Sight/Shadowed Areas

Line-of-Sight Areas
Shadowed Areas

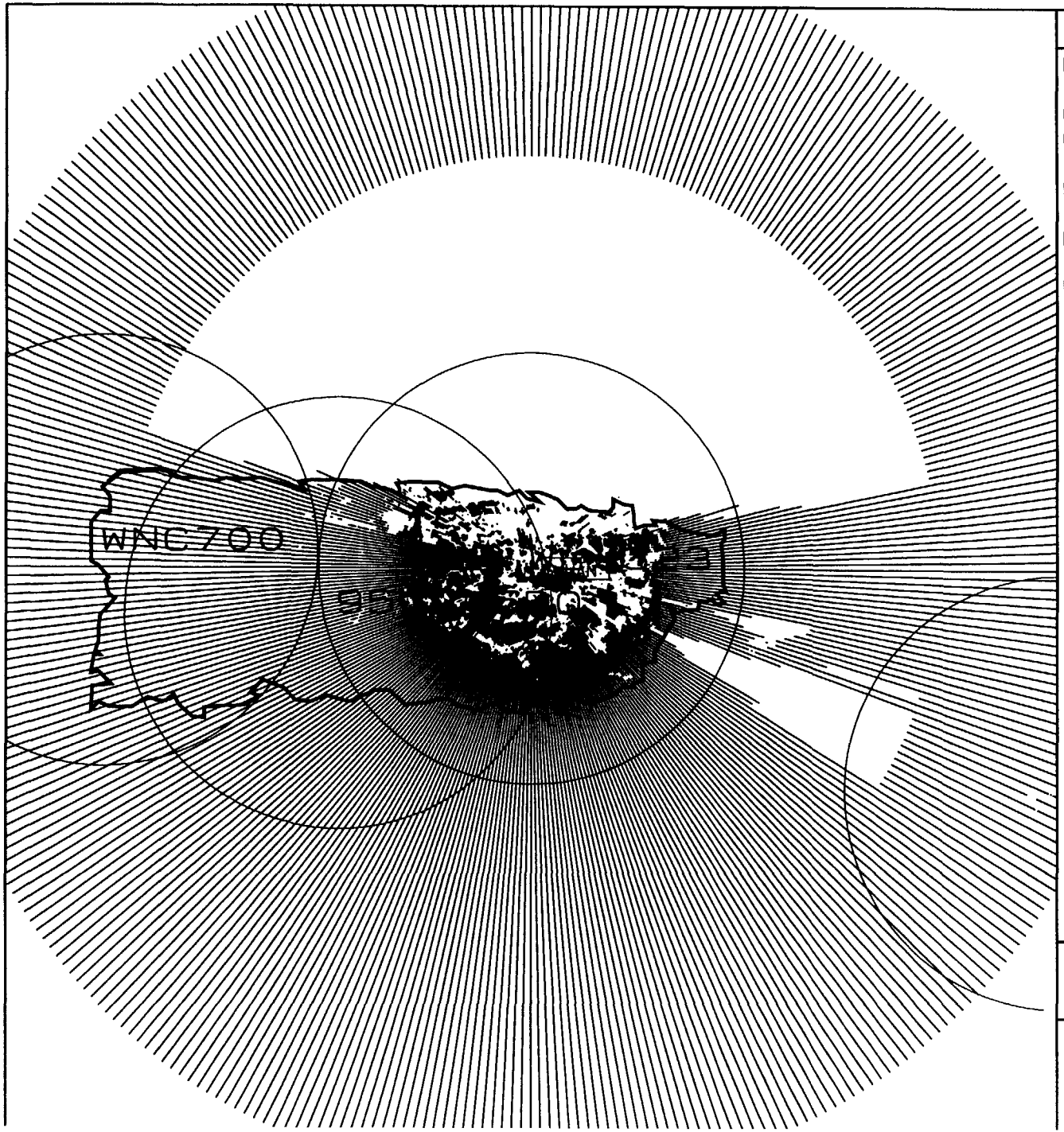
Site	Ant Elv AMSL (feet)	ERPd (dBW)	Ant. Type /Orient.	Coordinates
SJUAN	1735.0 2600.0000 MHz	28.00	OM-H	N 18 16 51.0 W 66 6 38.0

MILES
20 0 20 40

3 SEC SHADOW MAP

SAN JUAN, PR

JUNE 1, 1998 A GROUP



MSITE(tm) - EDX Engineering, Inc.

Propagation model: Free space + RMD
Time: 50.00% Loc: 50.00% Margin: 10.0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factor: 1.333
RX Antenna - Type: DA-TX orien.
Height: 30.0 feet AGL Gain: -2.2 dBd

Line-of-Sight/Shadowed Areas

Line-of-Sight Areas
Shadowed Areas

Site	Ant Elv AMSL (feet)	ERPd (dBW)	Ant. Type /Orient.	Coordinates
SJUAN	1735.0	28.00	OM-H	N 18 16 51.0
	2600.0000 MHz			W 66 6 38.0

MILES
20 0 20 40

3 SEC SHADOW MAP

SAN JAUN, PR

JUNE 1, 1998 B GROUP

SETTLEMENT AGREEMENT

This is an Agreement effective as of the date of the last signed counterpart hereof by and among the University System of the Ana G. Mendez Educational Foundation ("Mendez"), Fundacion Sala, Inc. ("Sala"), WHTV Broadcasting Corp. ("WHTV"), Catholic Archdiocese of San Juan ("Archdiocese") and Caribbean University ("Caribbean").

WHEREAS, Mendez is licensee of Instruction Television Fixed Service ("ITFS") Stations WLX664, G1-G4, Aguas Buenas, Puerto Rico (the "Aguas Buenas G Station), WNC864, A1-A4, Cayey, Puerto Rico (the "Cayey A Station), WLX662, C1-C4, Gurabo, Puerto Rico (the "Gurabo C Station") and WNC703, C1-C4, Ceiba, Puerto Rico (the "Ceiba C Station"); and

WHEREAS, Sala is licensee of Multipoint Distribution Service ("MDS") Stations WHT665, F1-F4, Aguas Buenas, Puerto Rico (the "Aguas Buenas F Station"), WNTF632, WHTB423 and WNTB467, Channels H1, H2 and H3, respectively, at Aguas Buenas, Puerto Rico, (the "Aguas Buenas H Stations"); and

WHEREAS, Archdiocese is licensee of ITFS Station WLX321, A1-A4, Aguas Buenas, Puerto Rico (the "Aguas Buenas A Station"), has filed an application with the Federal Communications Commission ("FCC") proposing a new ITFS facility using the A Group at Cayey (FCC File No. BPLIF-941201DB) which is mutually-exclusive with Mendez's application for the Cayey A Station and Archdiocese has filed with the FCC a petition for reconsideration of the FCC's grant of a license to Mendez for the Cayey A Station (File No. BPLIF-940317DJ); and

WHEREAS, Caribbean is licensee of ITFS Station WLX315, C1-C4, Aguas Buenas, Puerto Rico (the "Aguas Buenas C Station"); and

WHEREAS, WHTV leases transmission capacity on the Aguas Buenas C, D, F and H Stations for the purpose of operating a wireless cable system serving the San Juan, Puerto Rico area and WHTV, Sala, Caribbean and the Archdiocese have since 1995 been engaged in a coordinated effort to secure FCC authority to make modifications, including an increase in power and antenna height, to their facilities at Aguas Buenas to improve signal coverage; and

WHEREAS, Mendez has applied to the FCC for authority to make modifications to the facilities of the Aguas Buenas G Station (File No. BMPLIF-950914MD); and

WHEREAS, Sala and WHTV have filed with the FCC a petition to deny the modification application for the Aguas Buenas G Station on the grounds that the modified Aguas Buenas G Station would cause harmful electrical interference to the Aguas Buenas F and H Stations; and

WHEREAS, the FCC has dismissed the application of the Archdiocese for authority to make modifications to the facilities of the Aguas Buenas A Station (File No. BPLIF-950915EY) because of interference to Mendez's Cayey A Station; and

WHEREAS, the FCC has dismissed the application of Caribbean for authority to make modifications to the facilities of the Aguas Buenas C Station (File No. BPLIF-950915EZ) because of interference to Mendez's Gurabo C Station and Ceiba C Station; and

WHEREAS, the parties desire to enter into a Settlement Agreement pursuant to which all pending disputes before the FCC among these parties would be resolved and the parties' ITFS and MDS facilities would be operated in a coordinated manner so as to avoid interference among their systems; and

WHEREAS, the parties believe that the settlement proposal herein would be in the public interest in that it would resolve a number of pending matters and allow the prompt initiation of new or improved service to the public in Puerto Rico; and

WHEREAS, the obligations of the parties hereunder are conditioned on prior approval of the FCC.

NOW THEREFORE, in consideration of the mutual promises made herein, and intending to be duly bound hereby, the parties agree as follows:

1. Settlement. The parties hereto agree to file jointly a request for settlement (together with supporting documentation required by the FCC's rules, including appropriate declarations of the parties), pursuant to footnote 47 of the March 16, 1986 *Memorandum Opinion and Order* in MM Docket No. 83-523 and any other applicable FCC rules and policies, which shall provide for the withdrawal of Sala's and WHTV's petition to deny the modification application for the Aguas Buenas G Station and the Archdiocese's petition for reconsideration of the FCC's grant of the Cayey A Station, contingent upon the FCC's approval this agreement and undertaking all of the following:

A. Reinstate the application of the Archdiocese for a new ITFS station at Cayey using the A Group channels (File No. BPLIF-941201DB), and grant such application.

B. Grant of an application to be submitted by Mendez (the legal and engineering fees for which application will reimbursed by WHTV) requesting authority to operate Mendez's Cayey A Station using the G Group channels, but otherwise with the same technical configuration as previously proposed in its initial application as amended (FCC File No. BPLIF-9404317DJ).

C. Reinstate the application of the Archdiocese for modifications to ITFS station WLX321, A1-A4, Aguas Buenas, Puerto Rico (File No. BPLIF-950915EY), and grant such application.

D. Reinstatement of the application of the Caribbean for modifications to ITFS station WLX315, C1-C4, Aguas Buenas, Puerto Rico (File No. BPLIF-950915EZ), and grant such application.

E. Grant of Mendez's application proposing modifications to the facilities of the Aguas Buenas G Station (File No. BMPLIF-950914MD).

2. Antenna Upgrades. Upon grant by the FCC of all of the applications listed above and if necessary to eliminate electrical interference, WHTV shall, at Mendez's request, install upgraded receive antennas at those registered receive sites that are specified in the report of WHTV's consulting engineer, Hardin & Associates, dated March 30, 1998. Such upgrades shall be of the same or equal quality as those identified in that report. WHTV shall complete such installation within a reasonable period after the receipt of such written request from Mendez.

3. Denial of Applications. In the event that the Commission does not grant all of the applications listed in Paragraph 1 above or grants any such application with conditions materially adverse to any party, the parties hereto shall promptly negotiate in good faith to reform and amend the relevant application and/or this agreement so as to revise any portion that they reasonably believe to be responsible for such action and shall resubmit and prosecute the refiled application with the objective of securing FCC authority to operate the facilities consistent with the applications referenced in Paragraph 1. In the event that the refiled application is denied and the parties have undertaken all reasonable efforts to revise, refile and prosecute the application, either party may, if it is not in material breach or material default of this Agreement, terminate this Agreement immediately without further liability.

4. Coordination of Implementation of Modifications at Aguas Buenas. The parties agree that they will implement of the modifications to the Aguas Buenas A, C, F, G and H Stations simultaneously to minimize the potential for adjacent channel interference. In the event that the parties have not agreed to implement the authorized modifications within twelve (12) months of the grant date of the last of the applications listed in Paragraph I, either Mendez or WHTV and its affiliated licensees may unilaterally implement the authorized modifications.

5. Digital Operation. The parties agree that any party hereto may convert the facilities authorized hereunder to digital operation and acknowledge that this agreement may be submitted to the FCC in support of any application for digital authority.

6. No Further Oppositions/Cooperation. No party to this Settlement Agreement shall interpose, encourage or support any other objection of any kind with respect to the ITFS facilities agreed upon by the parties in this Agreement. Each party to this Agreement shall cooperate with the other parties and with the FCC by expeditiously providing to each other and to the FCC, or both, all additional information that may be reasonably required, and by expeditiously filing all additional documents that may be necessary or appropriate to comply with the FCC's Rules or to effectuate the objectives of this Agreement.

7. Complete Agreement. This Agreement contains the complete understanding of the parties with respect to the subject matter hereof. Without limiting the foregoing, no other payments or other consideration shall be promised or paid by any party to any other in consideration of its effectuation of this Agreement. This Agreement may not be amended or modified except by an instrument in writing signed by any affected parties.

8. Notices. All notices or other communications to be given pursuant to this Agreement shall be in writing and shall be sent certified mail, return receipt requested, or delivered by overnight courier, to the parties as follows:

If to Mendez, to:

Mr. Jose F. Mendez, Jr.
Station WMTJ-TV
176 Isidoro Colon
Rio Piedras, PR 00928

With a copy to:

Todd D. Gray, Esq.
Dow, Lohnes & Albertson, pllc
1200 New Hampshire Ave., N.W., Suite 800
Washington. DC 20036-6802

If to Sala or WHTV, to:

Jose M. Sala
WHTV Broadcasting Corp.
d/b/a Telecable de Puerto Rico
Ponce de Leon 1409
Santurce, PR 00907

With a copy to:

Paul J. Sinderbrand, Esq.
Wilkinson, Barker, Knauer & Quinn, LLP
2300 N Street, N.W., Suite 700
Washington, DC 20037-1128

If to Archdiocese, to:

Catholic Archdiocese of San Juan
201 San Jorge Street
San Juan, PR 00903

If to Caribbean, to:

Caribbean University
Carretera 167 Km. 21.2
Bayamon, PR 00621

or to such other address or such other person as either party may designate by notice given to the other in writing. All notices shall be deemed given upon receipt.

9. Binding Agreement. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their heirs, successors and assigns.

10. Warranty. Each party hereto expressly warrants that it has the full power and authority to enter into this Agreement and to execute the same, and that there is not constraint upon such party's legal ability to perform its obligations hereunder.

11. Specific Performance. Because of the unique nature of the FCC authorizations which are the subject matter of this Agreement, specific performance shall be available as a remedy for breach of this Agreement in addition to all other appropriate legal or equitable remedies.

12. Governing Law. This Agreement shall be governed by and construed under the laws of the Commonwealth of Puerto Rico, without regard to principles of conflicts of law.

13. Counterparts. This Agreement may be executed in counterparts, all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the last signed counterpart hereof.

UNIVERSITY SYSTEM OF THE ANA G. MENDEZ EDUCATIONAL FOUNDATION

By: _____

Title: _____

Date: May 22, 1998

FUNDACION SALA, INC.

By: _____

Title: Director

Date: 5/26/98

WHTV BROADCASTING CORP.

By: _____

Title: General Manager

Date: 5/26/98

CATHOLIC ARCHDIOCESE OF SAN JUAN

By: _____

Title: _____

Date: _____

IN WITNESS WHEREOF, the parties have executed this Agreement as of the last signed counterpart hereof.

UNIVERSITY SYSTEM OF THE ANA G. MENDEZ EDUCATIONAL FOUNDATION

By: ____________________

Title: ____________________

Date: ____________________

FUNDACION SALA, INC.

By: ____________________

Title: ____________________

Date: ____________________

WHTV BROADCASTING CORP.

By: ____________________

Title: ____________________

Date: ____________________

CATHOLIC ARCHDIOCESE OF SAN JUAN

By: [signature]

Title: ARCHBISHOP OF SAN JUAN

Date: MAY 28, 1998

CARIBBEAN UNIVERSITY

By: _____

Title: President

Date: 5/27/98